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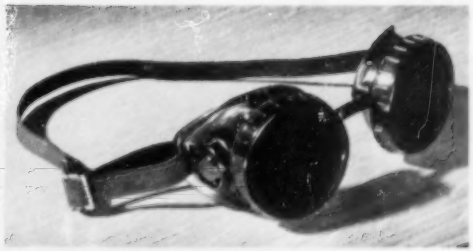

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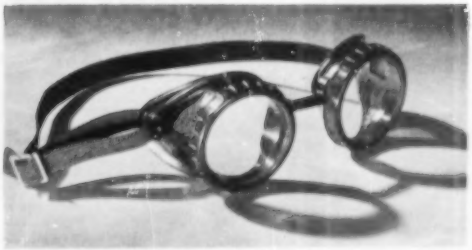

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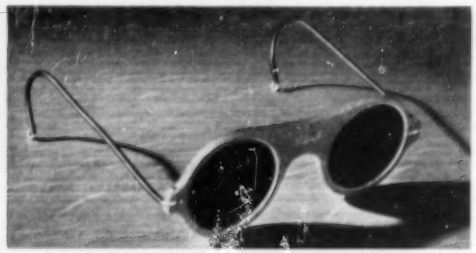

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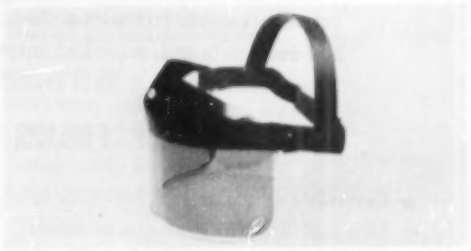

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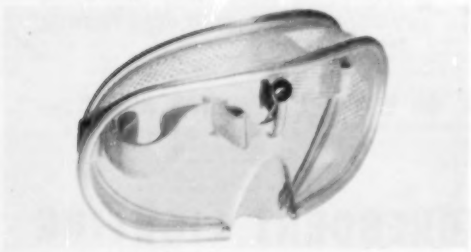

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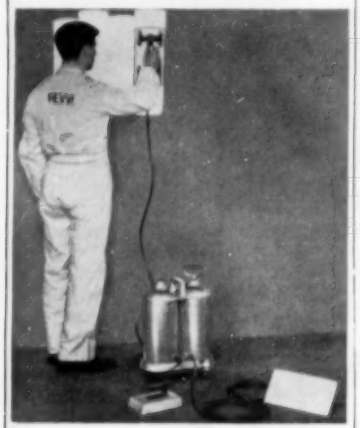

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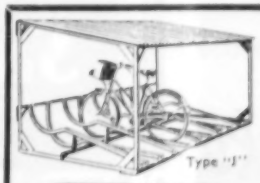
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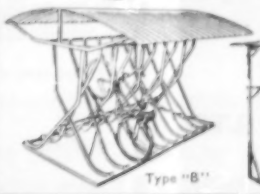
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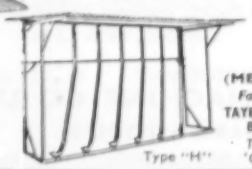
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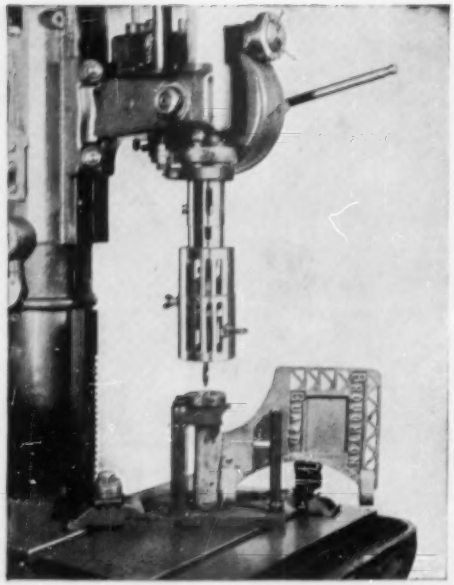

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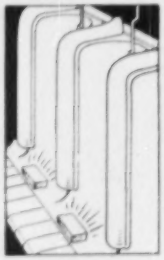

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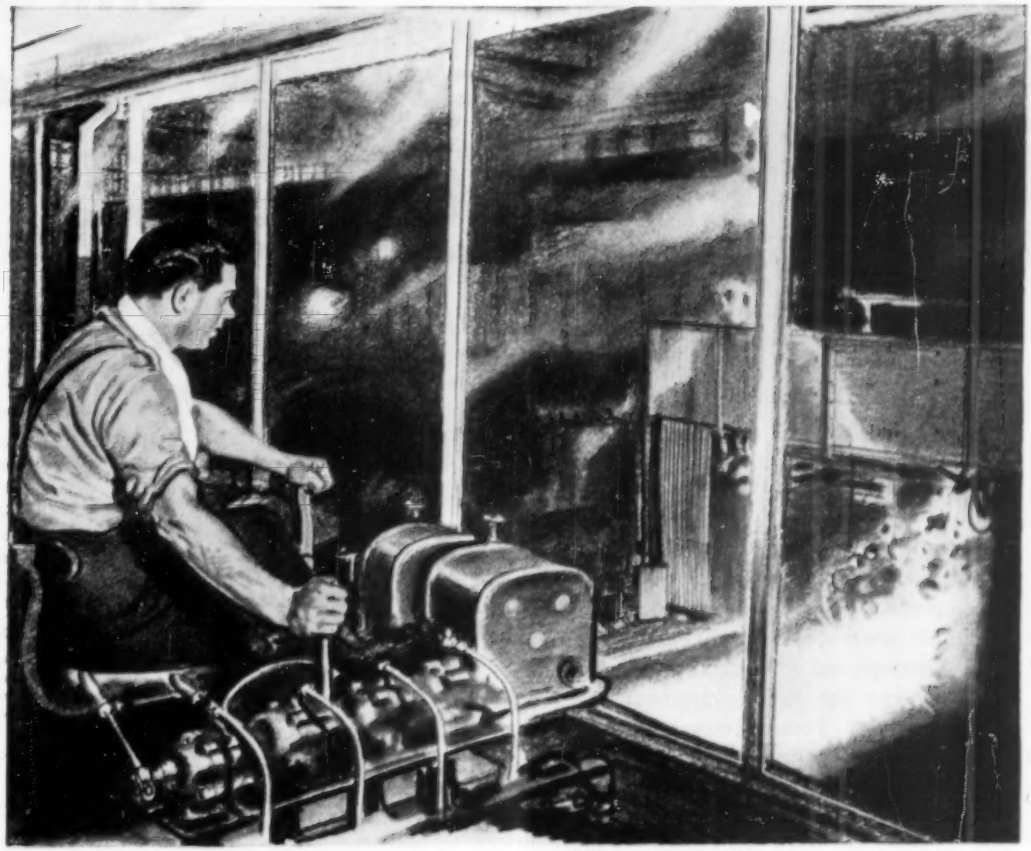

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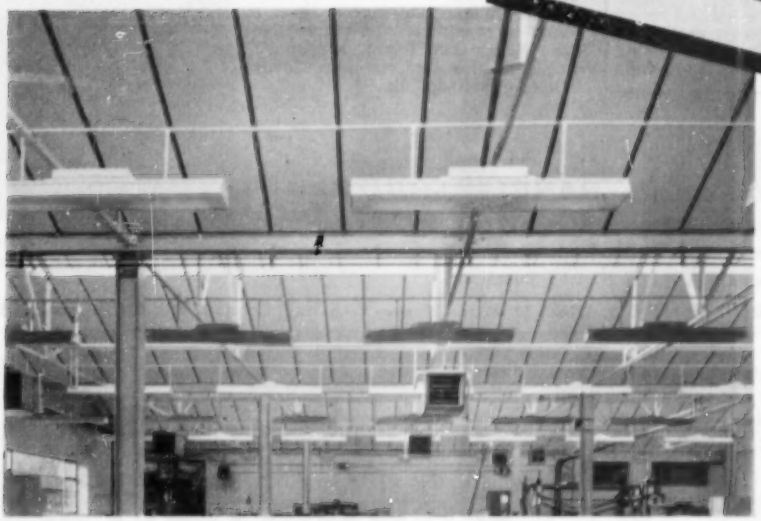

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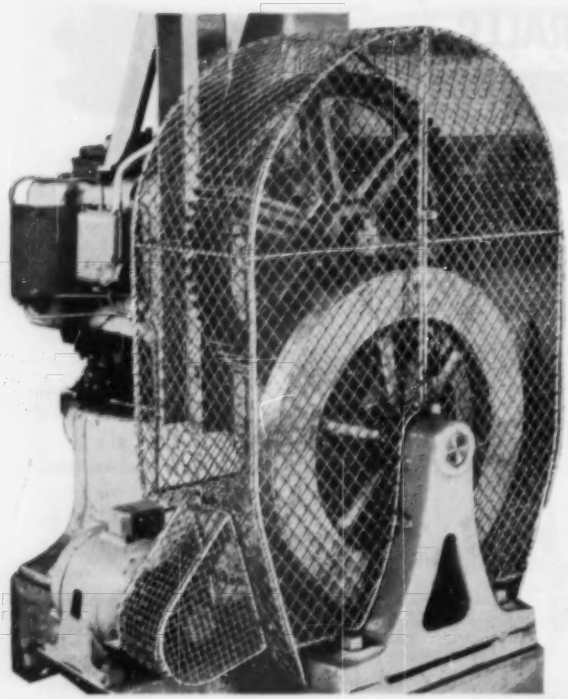

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A hundred years ago much of the factory inspector's time was taken up fighting numerous abuses of child labour. This picture shows Dr. Robert Baker, originally a certifying surgeon, later H.M. Inspector of Factories, questioning children about their ages.

Here is an account of Britain's Factory Inspectorate from its earliest times to the present day. It tells how, as management has become more enlightened, the role of the factory inspector has changed too. No longer is most of his time taken up tracking down abuses and taking out prosecutions against unscrupulous employers. Today he is regarded as the friend and adviser of industry, a sort of general practitioner who will suggest to employers with specific problems that they consult a specialist.

THE G.P. OF INDUSTRY

The Factory Inspector Moves With the Times

By ROBERT McKINNON

ONE of the most fascinating stories in our industrial history lies behind a recent bald announcement by Mr. Harold Watkinson, Parliamentary Secretary to the Ministry of Labour and National Service. He stated that in future there would be a continuing competition for posts of H.M. Inspectors of Factories instead of the two competitions a year previously held.

The Factory Inspectorate began in 1833 with a complement of four inspectors and to-day numbers 380 and needs 10 to 15 new men every year to keep pace with the growing demand for its services. "Demand" might seem an odd term to use in connection with a Government department that still takes up a good number of prosecutions each year and which in earlier times was regarded with widespread hostility and suspicion by employers. The fact is, however, that, of all the changes the Inspectorate has brought about, the most radical has been winning the trust and esteem of management. In all but a few cases, the "interfering busybody" is now the welcome guest whose advice is sought on a multitude of questions.

It is primarily for this reason that recruitment to the Inspectorate is now on a continuous basis and not twice yearly as before. Like the industries it serves, the Department urgently needs men (and women) of the right calibre and it is not easy to find them. The Department cannot pay as well as industry can for posts of similar responsibility. On the other hand, it can be argued that those who do choose the Inspectorate with its lower pay are likely to have in some measure that sense of public service which the job demands.

This sense of service has been a necessary qualification for the job since the system of factory inspection was begun in 1833 when under the Factories Act of that year four inspectors of factories were appointed. Admitted, they were paid £1,000 a year—then a princely salary—but they really earned their money. Not only was their list of powers and responsibilities quite formidable, but in discharging them they met with abuse, accusation and obstruction at every turn. Hardly was the ink dry on their contracts when the *Leeds Intelligencer* (to quote but one example) of August 10, 1833, was saying:—

"The inspectorships are a lumbering affair and will turn out in practice, we suspect, a nullity; their chief recommendation with their projectors is probably the patronage they afford."

Another instance of this sort of

Talks and lectures form an integral part of the work of today's factory inspector. Here is one talking to a group visiting the Industrial Health and Safety Centre in Westminster. The sliding seat in the foreground is for use in jobs that demand movement from side to side. This type saves considerable fatigue.

thing was the petition of the National Association of Factory Occupiers sent to the Home Secretary in respect of the activities of Mr. Leonard Horner, perhaps the most outstanding of the first four inspectors. This petition, which is reproduced on the following page, was drawn up 22 years after his appointment so it gives some idea of the long drawn-out nature of the hostility. An early portrait of Mr. Horner describes him as "short and stocky in appearance with a high forehead and deep-set eyes. His strong mouth and determined jaw proclaimed him a man of ruthless energy and deep convictions—ideally fitted for the part he was called upon to play."

The powers conferred on the first inspectors could be grouped under three heads:—

1. Full powers of entry into premises, investigation, examination of books and registers and examination of witnesses under oath.
2. Judicial powers of a Justice of the Peace. They had the same power and authority over constables and peace officers as magistrates. Proceedings under the Act of 1833 could be taken before a single inspector who summoned witnesses to appear to give evidence, and administered oaths.
3. Powers to make binding rules, regulations and Orders for the execution of the Act.

The next Factory Act, that of 1844, was a vigorous and far-reaching reform. It abolished the second group of inspectors' powers and also took away from them and transferred to the Secretary of State their power to make Orders and regulations. These have never been conferred on inspectors since.

The 1844 Act set the pattern from which the modern idea of factory inspection in this country has evolved. In 1875 we find Alexander Redgrave, who three years later was to become the first Chief Inspector of Factories when the Inspectorate was centralised, writing:—

"It has been my view always that we are not acting as policemen, that it is our object to be the friend of the manufacturer as much as the friend of the *employé* . . . we should simply be the advisers of all classes, we should explain the law and do everything we possibly can to induce them to observe the law. It has been my endeavour that a prosecution should be the very last thing we should take up."

In 1932 the then Chief Inspector of Factories wrote:—

"The main functions of the Inspectorate to-day are instruction (on matters within the law) and advice (on matters outside the law) rather than compulsion."

The 1955 view, as quoted to me by a deputy chief inspector, is:—

"The Factories Acts are something in the background. We may be regarded as general practitioners of industry who in certain cases recommend employers with specific problems to consult a specialist. We have a technical branch in the Factory Inspectorate—our own specialists in order to help ourselves."

Figures in this case are a sure guide to the degree to which the function of factory inspectors has been modified as employers have gradually become more and more enlightened. In 1838 when there were under 5,000 factories in Britain, the four original inspectors

What Makes a Good Factory Inspector?

1. *He should have a sound liberal education plus technical ability.*
2. *A good mixer, prepared to be patient and understanding—in fact, a high-grade extrovert.*
3. *A flexible mind, good judgement and willingness to take responsibility.*
4. *Ability to speak in public for his services are in constant demand as a lecturer.*
5. *Sound physique, no fear of hard work and willing to travel about the country changing homes with the job.*
6. *That sense of service which puts the job before the pay.*

took up 846 prosecutions against 397 employers. To-day, when there are 235,000 factories and 380 factory inspectors, the number of prosecutions averages only between 400 and 500 a year.

The change in employers' attitude says the Inspectorate, has been particularly marked since World War II and, apart from the vast amount of advice given to employers on technical and legal matters, inspectors keep up a very close personal contact with the industries they serve.

Divisions and Districts

The Inspectorate is now in 13 divisions each in charge of a superintendent inspector. In turn each division is further split up into a number of districts—there are 94 of these in all—each under a district inspector. The district inspector is in complete command of his own area and makes his own decisions on what factories to visit and how often, though generally in the course of any year he will cover his area quite thoroughly.

The duties are exacting and involve working in all kinds of weather and often at unusual hours. There are, however, as the Ministry of Labour points out, great compensations. Not only is the work interesting and varied, but it also offers the chance of meeting all sorts and conditions of men and women and learning how they work and think. Of necessity the inspector has considerable freedom to arrange his work and, since so much of it is concerned with people, his job requires full exercise of his personal qualities.

To discharge these duties, the Inspectorate is looking for people of a sound liberal education with scientific or technical qualifications. The inspector should be a good mixer, a high-grade extrovert, able and prepared to deal with people with patience, understanding and sympathy. Other essential qualities quoted by the Ministry are "administrative sense, sound judgment, strict impartiality and willingness to accept responsibility." If possible he should also be, or be prepared to become, a good speaker since, in addition to court work, inspectors are in demand for lectures to management and workpeople, to students and to trade union meetings and the like.

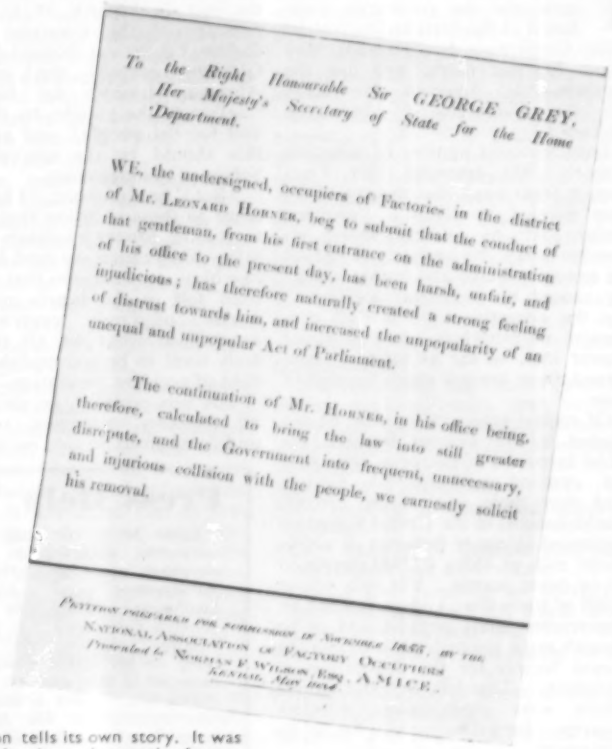
The normal age of recruitment is 21 to 30 years and, on first appointment, an inspector enters as a Class II Inspector and serves on probation for two years. During that time he receives a thorough training and towards the end has to sit a qualifying examination in factory law, industrial hygiene and sanitary science.

In his day-to-day work, an inspector has a formidable list of duties. He is concerned with the fencing of machinery, the proper control and handling of dangerous chemicals, guarding against fire risks and many other industrial hazards. He is also concerned in the prevention of industrial disease or poisoning, in the cleanliness, ventilation, temperature and lighting of workrooms, in the provision of first-aid and washing facilities, seats, cloakrooms and canteens.

He is also from time to time required to attend in magistrates' courts as a witness in Departmental prosecutions. When he has enough experience, he will conduct prosecutions himself as he still has this power under the Factories Act. He will also attend inquests arising out of fatal accidents in factories; at such times he may examine witnesses and advise the coroner on technical matters.

The pay offered for this imposing collection of qualities and duties is no longer princely. Certain small supplements apart, a Class II Inspector starts at £565 at the age of 26 rising to £780 at the age of 30. A Class IB Inspector has a present maximum of £1,175 and a Class IA of £1,510. Superintending inspectors can go up to £1,875, deputy chief inspectors to £2,000, while the salary of the Chief Inspector of Factories himself is £2,225. It is small wonder that men of such calibre are hard to find at the money when industry can pay twice as much, and especially as the men on the Inspectorate must be prepared to move from one part of the country to another "as the exigencies of the Service require."

On the other hand, as the Ministry says, "apart from any results immediately evident, the inspector has the satisfaction of realising that his efforts will, in the long run, secure a general betterment of the working conditions of the millions of people in industry." And this is no mere platitude.



To the Right Honourable Sir GEORGE GREY, Her Majesty's Secretary of State for the Home Department.

WE, the undersigned, occupiers of Factories in the district of Mr. LEONARD HORNER, beg to submit that the conduct of that gentleman, from his first entrance on the administration of his office to the present day, has been harsh, unfair, and injudicious; has therefore naturally created a strong feeling of distrust towards him, and increased the unpopularity of an unequal and unpopular Act of Parliament.

The continuation of Mr. HORNER, in his office being, therefore, calculated to bring the law into still greater disrepute, and the Government into frequent, unnecessary, and injurious collision with the people, we earnestly solicit his removal.

This petition tells its own story. It was the sort of spleen that early factory inspectors met with year after year.

Is Safety Still a Shop Floor Cinderella?

By The EDITOR

The object of much professional interest and scrutiny was this special display of safety trophies at the Grand Hotel, Scarborough, the Conference Headquarters.

More than three-quarters of British firms employing 50 or more people are ripe for gathering into the safety movement. These astonishing figures were given at the recent National Industrial Safety Conference at Scarborough by the Chief Inspector of Factories himself. Another speaker referred to the need for an atomic-like blast to bring about what ought to be accomplished in the field of accident prevention. As this special report of the Conference shows, the solution of these and similar problems is a management priority.

TO judge from some of the papers read and the comments overheard at the National Industrial Safety Conference, Scarborough, May 20 to 22, one might well ask the question—"Is Accident Prevention still the Cinderella of Industrial Welfare ?"

True, a record number of delegates —nearly 700—attended this Conference, from which fact the organisers were entitled to claim a "growing concern felt by all progressive industrialists for the necessity to reduce the annual wastage and human suffering caused by industrial accidents". But the operative term is "all progressive industrialists" and it would appear that, so far as safety is concerned, there are not nearly enough of these.

Of special relevance are the figures quoted by Sir George Barnett, the Chief Inspector of Factories, who gave the opening address. Sir George said that there were some 250,000 establishments in the United Kingdom registered as either factories or workshops and of these 22,000 employed 50 or more people. Yet only about 4,000 of them were known to have an appreciable safety organisation or to have thought it worth while to join the Royal Society for the Prevention of Accidents. This left 18,000 factories which were ripe—some doubtless overripe—for gathering into the safety movement.

What these figures imply was supported in no uncertain manner by the next speaker, Mr. H. L. Ginaven, director of the *Goodyear Tyre & Rubber Co. (Great Britain) Ltd.* Mr. Ginaven adapted the words of Abraham Lincoln for his slogan "Safety of the people, by the people and for the people" and added that this should be the aim of all enlightened managements.

"But," he continued, "I have about come to the conclusion that, in order to get the proper emphasis behind a safety programme, we need an atomic-like blast, an explosion that will make itself felt in the hearts and in the minds of men everywhere to accomplish what we all really and truly want to be accomplished in this field of accident prevention."

The first essential, he said, was for all directors, managers, supervisors and foremen to be sold on the idea of safety. Second, a firm should join some such organisation as RoSPA and, third, employ a safety officer who had a real conviction that he wanted to prevent accidents.

The idea that management should be sold on safety was developed at length by Mr. John Gardner of the *I.C.I.* Central Safety Department in a talk on Safety Incentives. Management influence, he said, must extend far beyond the confines of discipline ; it must take an interest in safety programmes even though the executive application of accident prevention might rest with middle management. Every manager must not only know his legal obligations but also have a sense of duty for it is he who sets the pattern of behaviour.

There was, said Mr. Gardner, the old-established industrial philosophy that accidents were inevitable, but we were seeking to bring about a change in current thought. He advanced the idea that, although psychological tests might be able to find out which workers were accident prone, the process would be too cumbersome for most firms. The most powerful incentive to accident prevention was to develop a sense of community which could be done by group education and training schemes backed up by campaigns and competitions. A speedier method was to concentrate on exemplars whom the rest of the group would copy. But the detection of exemplars, he claimed, could only be done by psychologists.

In any event, Mr. Gardner believed that accidents could be reduced if we could alter the "norm of behaviour".

Press Help

Some 30 to 40 group safety secretaries attended a special reception given by "Personnel Management and Industrial Equipment" during the Scarborough Conference. It was an informal occasion, the object being to get officials doing the same job to meet and talk among themselves. Later a brief discussion on "How The Management Press Can Best Help The Safety Officer" took place.

As regards campaigns and competitions, he claimed:

"It doesn't matter what you do, so long as you do something and keep on doing something".

Bearing out this point was the debate on the Sunday on the motion "That this Conference agrees that a Safety Committee forms an essential part of an Accident Prevention Organisation." That this motion was rejected by the narrowest of margins indicates the measure of disagreement among safety officers themselves on what measures should be taken to reduce accidents in industry.

At the same time overtones and undertones of the Conference indicated an awareness of the need to "keep on doing something". And it was with no little sense of frustration that one delegate remarked to me:

"So far as my management's concerned, I'm just there to answer to the factory inspector. They ought to know that's only where the job begins."

Two Schools

If delegates to the Conference can be taken to represent a cross-section of current thinking on accident prevention, then two main schools emerge. There is the practical school which says in effect "know your machines, tighten up works rules, see that existing regulations are obeyed and keep a sharp watch for faulty equipment and dangerous practices". Then there is the school which believes that safety is as much a matter of education, of inspiring workers with a sense of personal responsibility, as of discipline and technical efficiency. They are, as it were, seekers after a "philosophy of safety" or a group who believe in getting down to what is termed "the fundamental principles of accident prevention".

The solution probably lies in an amalgam of both. Mr. Gardner, for instance, although his paper probed deep in an attempt to lay the foundations of a safety philosophy, also emphasised the need for discipline. "If there are rules," he said, "it is axiomatic that these should be obeyed". And this despite the fact that today, when there are more jobs than men, employers often find enforcement difficult.

To sum up, then, much remains to be done in the industrial safety field, but at least most safety officers know it. Among them there is little complacency; and a lot of them wish that management displayed a similar discontent.

How to Enthuse Workers to Reduce Accidents

By ROBERT MITCHELL

By perseverance and a carefully planned campaign *Rubery Owen and Co. Ltd.* have infused a spirit of safety consciousness among their workers. Not every firm can undertake a safety programme on the same scale; but the technique which has brought them success can be adapted for use by the smaller firm. Our front cover shows the winning tableau at their recent works safety exhibition, contrasting the careful, safety-conscious apprentice with the one asking to be injured.

TO mark the progress made in safety during the past ten years the Darlaston works of *Rubery Owen & Co., Ltd.*, recently held a special safety exhibition at which over £100 was awarded in prizes for various competitions. This exhibition marked the climax of unremitting effort over a decade which resulted in a reduction of the number of hours lost due to accidents from 160,000 in 1945 to 47,000 in 1954.

An even more valid indication, however, of the very real and active interest taken in safe working at this firm was perhaps the Safety Poster Competition held earlier for which entries were so numerous and so excellent that the judges had the hardest of tasks in choosing the winners. As it was, additional cash prizes had to be awarded.

This Competition (the two winning entries are reproduced overleaf) was organised primarily as a competition in ideas, how well the artist could explain himself in writing or drawing being of secondary importance. It was found that all contributors showed some originality and that most made use of the experience gained in their jobs. Many entries were serious, some humorous, others explained themselves in rhyme; but no matter how it was put over, the message was still there.

The winning posters are now on display on the companies' notice boards, and when these have lost their impact the Rubery Owen Safety Committee will organise further competitions.

How did the company manage to infuse this spirit of safety consciousness among its workers which has led to such welcome results?

To find the answer we must go back to the autumn of 1943 when the firm decided to appoint a representative safety committee under the chairmanship of Mr. H. S. Price who was to lead the works safety movement until he retired in March this year. Mr. Price was empowered to support, if he chose, whatever scheme was put forward and this was most important because the workers' representatives realised this and were not afraid to air their views fully. The vice-chairman of the committee was appointed from among the workers' representatives.

The committee met once a month during working hours, and in the years that followed developed many special features of accident prevention. These have included:

Safe use of lifting tackle;
Safe working of overhead electric cranes;
Safety training of youths, potential supervisors and supervisors;
Training and licensing of overhead and jib crane, fork lift truck, and Lister truck drivers;
Protective clothing; and safety footwear;
Safe use and issue of abrasive wheels on grinding machines;
Machine guarding and "Authorisation of Plant" scheme;

This poster won first prize in the *Rubery Owen* safety poster competition and is being shown on the company's notice boards.

The second prize-winning poster. The competition also produced many other original suggestions for safety propaganda.

One-eyed persons' eye protection scheme;
Protection against dermatitis;
Foremen's accident prevention bonus scheme;
Safety propaganda in the form of competitions; and
Publication of the quarterly *Safety Bulletin*, specially designed safety posters and many other forms of selling safety.

At the same time, special sub-committees were set up to tackle technical subjects.

One of the main features of the early years was a Health, Safety and Welfare Week promoted in June, 1945. Such was the enthusiasm shown at this event that the safety committee regard it as the turning point, the date which marked the start of the improvement in the years that followed.

Before this, however, the committee realised that to get a true picture of works hazards every accident should be investigated, so a full-time accident investigation officer was appointed. Where practicable, he interviewed injured people before they were sent to hospital or to their own doctor for further treatment. The view was taken that accident victims could help greatly by discussing the circumstances that led to their injury. What they had to say could help in taking the necessary steps for avoiding repetition of such accidents.

Regular departmental visits were made and action taken on the spot with regard to accident hazards, while full reports based upon these investigations were sent to the departmental manager. In addition every Monday morning a special disciplinary sub-committee met to examine the detailed reports of accidents and to decide upon what should be done to prevent them happening again. This committee has often summoned careless and unsafe workers to their meetings to give account of their actions. In certain cases disciplinary action has been taken.

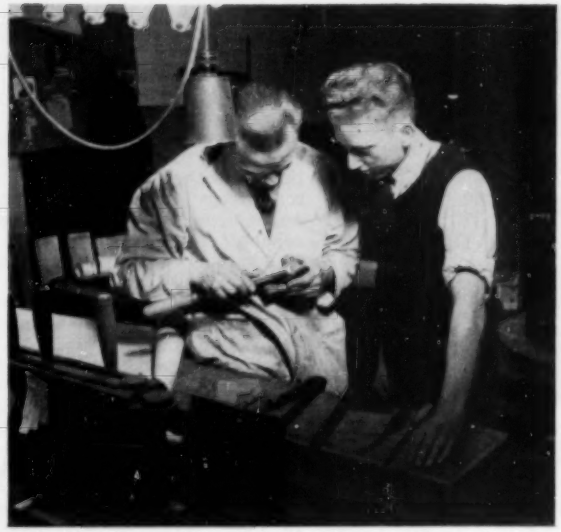
Management of all grades, contractors' representatives, etc., have also been requested to attend these meetings. Measures have been taken and decisions made on design and plant layout based on the evidence heard.

Some idea of the cumulative effect of all these measures can be gleaned from the company's safety figures for the past ten years. The 625 lost-time accidents for 1944 have been steadily reduced to a total of 189 for 1954. Many departmental records have of course also been broken, the outstanding achievement being the "two years' freedom from accident" recorded by the Coventry works. The number of accident-free departments has also consistently increased; in September, 1953, for example, 17 out of 23 departmental sections were free from a lost-time accident while 8 out of 15 departments had no accidents during the quarter ending that month. This latter record has since been equalled on a number of occasions.

At the National Industrial Safety Conference held at Scarborough in May (see page 24) Mr. H. L. Ginaven of the *Goodyear Tyre & Rubber Co.* stressed the need to elect a safety committee truly representative of workers and management. *Rubery Owen* did just this over ten years ago: they have reaped a rich harvest indeed.

7 Essentials for a Safety Campaign

1. *A safety committee truly representative of works and management.*
2. *A disciplinary sub-committee empowered to ask careless and unsafe workers to account for their actions.*
3. *The appointment of an accident investigation officer.*
4. *Safety propaganda in the form of competitions and, if possible, a safety bulletin.*
5. *Safety training of youths, potential supervisors and supervisors.*
6. *An accident-prevention bonus scheme for foremen.*
7. *Safety clothing, machine guarding and "Authorisation of Plant" scheme.*



An apprentice receives personal tuition in pattern making.

Flexibility and opportunity are the keynotes of the apprenticeship scheme run by *Leyland Motors Ltd.* The teaching staff make no hasty decisions and boys are given every chance to discover their true vocations. Features of the scheme are the special training given in safe working and compulsory attendance at the company's Day Continuation School. At a later stage apprentices who show promise can continue to University degree standard.

How Leyland Train Their Boy Entrants

By TREVOR HOLLOWAY

THE *Leyland* Trade Apprenticeship Scheme gives boys leaving school up to the age of 16 or 17 in certain cases, the opportunity to become tradesmen fully skilled in the crafts of their choice. The course ends on the boy reaching the age of 21, completing the qualifying period, or attaining the age demanded in a particular trade.

Applicants are interviewed by the Selection Board which sits for this purpose at times corresponding with the usual school term endings at Easter, Midsummer and Christmas. Boys selected undergo preliminary training until attaining the age of 16 and final acceptance as an apprentice depends on progress during this period. Those boys failing to secure an apprenticeship may be offered training as machinists operating milling, shaping, drilling machines and the like. If a boy machinist makes good he may be recommended for upgrading as an apprentice.

This last-mentioned point is interesting, as it exemplifies the flexibility of the Leyland scheme as a whole. No hasty decisions are taken by the teaching staff; they wait and watch for the apprentice's most useful talents to become evident, then help the boy to exploit his particular abilities to the best advantage. It is most important that a boy should have every opportunity of discovering his true vocation before committing himself to an apprenticeship of some five years' duration.

Factory in a Factory

It is during the preliminary instruction period of 8 months at the Apprentices Training Centre that boys have an opportunity of making up, or changing, their minds. This Centre is in effect a factory within a factory, being located in the company's South Works, and provides instruction in the four principal trades—turning, moulding, fitting and sheet metal working. In addition to these workshop sections, there is an office block comprising drawing and records office and a lecture room. Here, records of all apprentices are maintained, reports collected, and apprentice movements planned.

The type of work carried out is varied and for the most part non-repetitive, the aim being to start the apprentice on simple tasks and as his skill in the manipulation and use of tools increases he is given more advanced or difficult work to do. On entry, Works Rules and conditions of employment are fully explained. Also during this period special attention is directed towards safe working habits. On completing his period in the Centre, the boy moves out into departments in which his particular trade is plied.

It is a condition that all boys accepted in the Works, no matter in what capacity, must attend the company's Day Continuation School for one full day each week. Although the present school, which stands on a site adjacent to the South Works at Leyland, was built in 1939, the company can rightly claim to be one of

Boys at work in the Day Continuation School. The first school was set up shortly after the first World War so the company can rightly claim to be one of the pioneers of part-time education for young employees.

the pioneers of part-time education for its young employees. The first school was, in fact, established shortly after the first World War.

The school is owned by the company and run in conjunction with the Lancashire Education Authority. Its staff consists of a headmaster, four full-time teachers, plus additional teachers for the evening classes run during the winter months.

The school normally provides a three-year course, the first and second years of which are in continuation of full-time education and transitional in character. The subjects included in these two years—the Preliminary Technical Course and the Preparatory National Certificate—are mathematics, science, engineering drawing, English, industrial history and physical training. These are in line with the recommendations of the Union of Lancashire and Cheshire Institutes.

On completion of the two preliminary years, students may take either the first year of the National Certificate course or, alternatively, begin the more practical courses aiming at City and Guilds Certificates. Those who pass the third year may continue with the further years of part-time day study at either the Harris Institute, Preston, or the Wigan and District Mining and Technical College. Part-time studies are compulsory up to the age of 18 and all apprentices are strongly advised that it is in their best interests to continue with such studies. Evening classes are available and where necessary time off with pay is granted for travelling to such classes.

Further training at a Technical College may be directed towards either National or City and Guilds Certificates. National Certificates in mechanical and other branches of engineering are recognised standards of attainment throughout the industry, and, although such matters are the subject of approval on an individual basis, success in this work gains exemption in whole or in part from the Institution's own examinations.

Apprentices who secure continued high places in examinations, coupled with favourable shop reports during their training, may be offered the opportunity of transferring to the Student Engineer Course. The scholarship is normally of two years' duration and covers residential fees plus wage rates applicable for the second and third years of this apprenticeship. The company also has a scholarship scheme to enable its apprentices, who prove themselves capable of benefiting from such training, to continue studies to degree standard at University.

Applicants, whose ages must be between 17½ and 18 years, are expected to have attained the General Certificate of Education at the advanced level in subjects such as mathematics and physics with 2 or 3 passes in other subjects. They are required to reside at the company's Hostel, Wellington House, where charges for accommodation and tuition are at the rate of £200 per annum, for a period of three years. Weekly allowances up to 44/- are paid. Students prepare for the Ordinary and Higher National Certificates in Mechanical Engineering by part-time day attendance at the Harris Institute, Preston, but in special cases they may be permitted to take an External (London) B.Sc. degree. In the works the students begin in the Training Centre and subsequently move through other works departments with the object of obtaining engineering experience on as broad a basis as possible.

It normally takes four to five years to attain Higher National Certificate standard and this apprenticeship, previously of three years, has now been extended up to five years. This allows the apprentice to gain further experience in a specific branch of the work such as design, research, production, sales, etc. For this extension period the apprentice receives the current rates applicable to junior technical staff. No fees are payable, but against this he is responsible for his own accommodation and maintenance.

In a foreword to their Apprentice Training Booklet, *Leyland Motors Ltd.* give the would-be apprentice this encouragement: "In a world which increasingly demands mobility and power, every new position of responsibility means another opportunity for a Leyland-trained man. Every day young men are being promoted to these positions. To the young man about to leave school and looking ahead with an ambition for the future, a Leyland apprenticeship is an ideal foundation."

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2. *Instruction is carried out in the Apprentices' Training Centre, a factory within a factory.*
3. *Special care is taken to ensure that boys are told how to work* ***safely****.*
4. *Part-time studies are compulsory up to the age of 18.*
5. *There is a scholarship scheme to enable promising apprentices to continue their studies to degree standard.*

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Management At Work

Sensible Shifts

AN interesting example of how some firms tackle the full employment problem comes from Mitcham, Surrey, where over 200 women are employed on an evening shift by *James Pascall Ltd.*

Most of the women are middle-aged and have family responsibilities. The arrangement has, however, proved very satisfactory and the long waiting list of applicants shows that this type of employment is popular.

The evening shift in this factory was introduced in 1951 when 20 women were engaged as wrapping machine operators. Since then this system of working has been extended and now covers twelve departments in the factory.

Under a certificate of permission from H.M. Inspector of Factories for the District issued under The Factories (Evening Employment) Order, 1950, the women work from 5.30 p.m. until 10 p.m. in the machine wrapping and packing departments, handling work manufactured by men working on a double day shift.

Women are also working an evening shift in the toffee dipping departments. The majority of them were entirely new to toffee dipping and had to be trained for this type of work.

Immediate supervision is carried out by room supervisors who, in turn, are responsible to an evening shift superintendent.

There is not much absenteeism among evening workers. They have a high sense of responsibility and absent themselves or leave only when domestic problems cannot be overcome.

In addition to this evening shift, a night shift of older men is working at the factory. Most of them are over 50.

They operate wrapping machines (work normally done by women and girls) and here again the results have been successful.

Many of those employed on this night shift are men who, because of age or disability, have had difficulty in finding suitable employment.

Work and Wealth

AS part of their employee welfare programme, *Boxfoldia Ltd.* of Birmingham, recently held at Wills Hall, University of Bristol, their annual week-end conference which now takes the place of the more usual works outing, and is a unique and interesting experiment both in social activities and in worker education. The conference discussed many subjects all of which were allied to the main theme of *Work and Wealth.* Films were shown on such topics as the contribution of work study to productivity.

Another experimental scheme now being operated by *Boxfoldia* is the rewarding of good work done in their factory and in their studies by young employees, by sending them for a week-end in London. Thirteen young employees, five boys and eight girls, will spend the week-end of July 9-10 there.

The Eighth Boxfoldia Better Housekeeping Week was held recently and presented some interesting new approaches in this matter of organising a safety week. The firm has donated a Better Housekeeping Shield on which is engraved the winning department's name in a competition which is held every six months. There is also a Silver Better Housekeeping Cup competed for by all departments including staff offices, the nature of the work done in the department being taken into consideration by the judges.

Pits Clean-up

IN the eight years 1947 to 1955 the Scottish Division of the National Coal Board provided pithead baths accommodation (45 new baths and 22 extensions) for an additional 26,862 persons. In the same period medical centres or improved first aid accommodation were provided at 47 collieries; 19 new canteens were built and 7 major improvement schemes completed. During 1955 pithead baths will be provided for all remaining producing collieries other than short-life units.

Plans up to 1965 are in the main directed towards new or reconstructed colleries, and will include 53 projects for pithead baths for about 31,000 persons.

Altogether the welfare programme will cost about £4,500,000 exclusive of running charges amounting to some £500,000 a year. Social welfare activities based on the institutes are to continue in this pattern but with greater emphasis towards the integration of the miner and his family with the general community.

Reductio ad absurdum

A MACHINE must, if necessary, be securely fenced so as to comply with the Factories Act, 1937, even if it becomes unworkable, and, therefore, useless, as a result. That is the effect of the recent decision by the House of Lords in Summers & Sons Ltd. *v.* Frost. The machine in question was a high speed grindstone capable of revolving at about 1,450 r.p.m. Its upper part could be, and was, guarded and there was an adaptable tool rest at the base, but part of the grindstone was unprotected, and if fully protected, it would, presumably have become unusable. The plaintiff was an experienced maintenance fitter. He was injured while working in the course of his employment, by his thumb coming into contact with the unprotected part of this machine.

The House of Lords found the company to have been guilty of a breach of its duty under the Factories Act. Their Lordships said that they fully appreciated that the result might be to make it impossible to work a machine which had been in popular use for a long time without apparently any adverse reports from Factory Inspectors, or any administrative measures to safeguard its use. However, it was clear that the obligation imposed by Section 14 of the Factories Act to fence securely every dangerous part of any machine, subject to that Section's exceptions and proviso, was an absolute obligation. Qualifying words such as "so long as it can be fenced consistently with its being used for the purpose for which it was intended", could not be read into the Section.

The circumstances which brought about this judgment seem to indicate the possibility that there may be machines in common use which not only do not meet the existing requirements but cannot be made to do so if they are to be used. The large sums which are now awarded by way of damages obviously furnish potent reasons why factory managements should keep this problem continuously in mind, as in many cases the dispensary powers of Section 60, if invoked in time, would provide a means of avoiding heavy liability. (**Business,** June, 1955.)

Information Please

SPEAKING on the provision of information and the perfection of the art of communication at a recent Film Conference at Ashorne Hill, Sir Godfrey Ince, M.o.L. permanent secretary, outlined the three types of information needed:

1. General information about the economic position of the country;
2. General information about the economic position of the particular industry;
3. And information about what the particular firm was doing and what is going on in it.

The first two types, continued Sir Godfrey, were very important but had far less impact on workpeople than information about the firm itself and what it was doing. Plans and progress on production jobs should in particular be made known to supervisors.

Chance for Promise

TWO scholarships will in future be awarded annually by *The General Electric Co. Ltd.* to people of outstanding promise in its home establishments or associated companies. Examples of the work for which these scholarships are intended to provide are degree courses in electrical or mechanical engineering, general or special sciences, post-graduate

research, and courses in more specialised subjects like production engineering and glass technology. Studies in management or commerce will also be acceptable.

No restrictions on a candidate's age or choice of subject are envisaged in the scheme, provided that he has already shown that he possesses the ability and personal qualities which indicate with reasonable certainty that he is destined to take up responsible work in the future; and that there is every prospect of his having a useful and satisfying career in the direction of his choice within the company.

Scholars will undertake to remain with the company for three years after the completion of their course, and will spend an agreed period in one of the company's establishments during vacations. They will continue to receive their normal salary and the company will pay for their maintenance and fees at the University or other establishment where the scholarship is held.

A Clear Understanding

ALDIS BROTHERS LTD., the Birmingham projection specialists, are among the latest firms to produce a handbook for new employees. In common with many other Midlands firms, they point out, shortage of labour is a major concern at present, and they hold the view that to establish a clear understanding with their workpeople at the earliest opportunity is of the utmost importance. It would certainly be difficult to have many misunderstandings about the booklet "Welcome to Aldis". All the relevant conditions of employment are set forth with an admirable clarity and brevity.

HOUSE MAGAZINE DIGEST . . .

Other Firms' News and Views

Appreciating Work

A work study appreciation course organised by six leading firms of contractors was held at the Park Lane Hotel on April 22 and 23. Senior managers in the Operations Division of this company attended, and W. K. Laing was among the speakers at a preliminary conference when the purpose of the course was outlined.

He said it was first necessary to sell the idea of work study to management before attempting to supply it elsewhere, and it was for this reason that the 65 members of the five collaborating firms who were attending the course were mainly from the management side. **(Team Spirit.)**

Insulated Matter

You can send a message round the world in one-seventh of a second, yet it may take years to force a simple idea through a quarter of an inch of human skull. **(Electrolux News).**

Capital Support

We talk a lot nowadays about increasing the level of productivity. We have work study and incentive schemes. We study stocks and evolve new methods of stock control. We have to devise all sorts of ideas for increasing production. All of which are very useful: but compared with the proper management of capital they have only a marginal influence on overall efficiency. In my industry it is quite common to average £10,000 capital investment behind each process worker: it is not unusual for the figure to rise to several times this. (Dr. Alexander Fleck, **I.C.I. Magazine.)**

Climate of Opportunity

For some years now this Company has been in the forefront of those who have consciously and actively embarked on a programme specifically directed to these two ends, while fully realising that a programme of "management development" is not an end in itself. Programmes do not make managers. All they do is to give a man the opportunity to develop his own possibilities, such as he may have. Whether or not in the end he may make a good executive is his affair. The Company merely provides the right climate of opportunity and the right kind of training through which a man's particular talents may thrive and grow. The rest is up to him. **(Esso Magazine.)**

Careful Workers

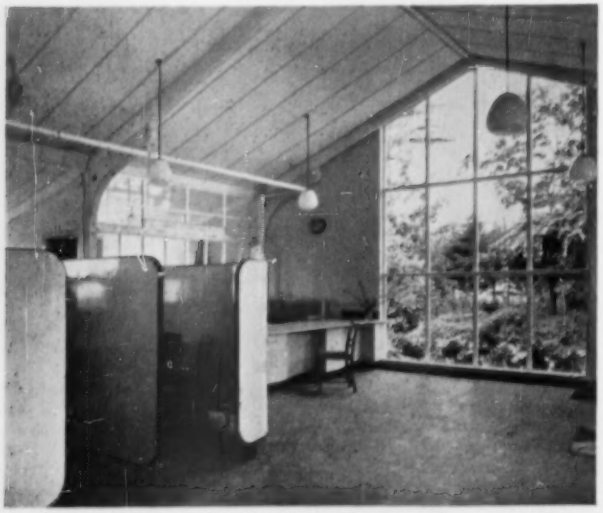
Mr. W. W. Hague (Escavator Shops Manager) describing his recent visit to America, told members of the Joint Production Advisory Council that one of the greatest impressions made on him by the American factories he had visited was the acute safety consciousness displayed on all sides. In every shop where there was the slightest sign of danger to the eyes goggles were compulsory, even for casual visitors. Every element of works safety was carefully studied even to the extent of having travelling teams who study details of foot accidents in various factories with a view to introducing the most efficient type of protective footwear. **(Thorncliffe News.)**

C.D. Realism

The fourth year's training of the Factory's Civil Defence Unit culminated in a big exercise. An imaginary rocket, with a nuclear warhead, exploded miles away but nevertheless Craigmillar, in the fringe area, suffered enough damage to keep the C.D. boys busy for an hour or two. An ammonia burst retarded rescue operations in one part of the factory, and the casualties, with their cleverly faked wounds, added a great deal of realism to the exercise. The umpires commented on the general efficiency and awarded high marks to the unit.

Although Civil Defence is taken seriously at Craigmillar the volunteers enjoy the training, and while hoping that their skill will never be tested in grim reality, have the satisfaction of knowing that they are ready for the worst. **(Wall's Magazine.)**

A MINISTRY GOES GAY



No gloomy confines or grim benches in this new employment exchange at Christchurch, Hants. The Ministry seems to be keeping up to date with industry in many ways.

It Pays to Talk in the Language of the Group

MORE THOUGHTS ON PLAIN—AND HUMAN—ENGLISH

MORE letters from you on the subject of letters and plain English keep dropping through my letter box. Mr. James Timbrell, M.I.B.F., has a crack at the university graduate in industry. He writes:—

"I was most interested in your feature in the May issue, on 'Plain English'. Nowhere is the lack of it more noticeable than in some foundry departments, where (rightly so) science with all that education provides has a major control nowadays.

"To us older practical executives, still vitally useful, so they tell us, their phraseology is sometimes Greek. 'Nodular material, lines of cleavage between molecules' and so on, looks impressive on paper. Practical men have other descriptions quite as apt.

"Not that this scientific nomenclature is resented; far from it, but it is not always readily understood—sometimes to our discomfort.

"To quote one instance, one young B.Sc. on his first morning in the works asked one of the most practical leaders a question which did not quite register, so he answered he didn't know. 'Will you please ascertain for me?' 'Ask who?' as a reply floored the refined one.

"It seems there is scope for some sort of works dictionary, where certain styles and phrases should be shown up; maybe the most scientific or the most drawn-out letter should be restyled and both be put on the notice board. Ridicule is a good deflater.

"Kind regards and best wishes to your interesting publication which in my opinion does not come out often enough."

In case you feel this disease is more prevalent in your own field of specialisation than in others, Mr. Timbrell, how do you like this piece of verbosity, taken from the world of the social sciences?

"In the pre-mechanised pattern (of getting coal) the pair based primaries and the large relatively undifferentiated collectivities composed a dynamically interrelated system that permitted an enduring social balance. The intense reciprocities of the former, with their personal and family significance, and the diffuse identifications of the latter, with the community and class connectedness, were mutually supportive."

I think, however, that both Mr. Timbrell and I would see the other aspect of this question, put very ably for us by Mr. K. E. Grace. He says:—

"The question of writing letters is not always a matter of couching all that has to be said in the simplest of phrases. This can lead to almost as much misunderstanding as those that are excessively verbose. These latter have arisen, surely, from the necessity of our legal jargon to cover all eventualities, and the apparent need for the Civil and Military Services to follow suit. The least that can be said of the former type of letter is that the recipients' feelings can be hurt if not outraged.

"Taking brevity to its ultimate and logical conclusion, the type of letters that would be written to A, an absentee, would be:—

> 'We are in receipt of your medical certificate and trust it will not be long before you are able to work again',

and B, an unsuitable applicant for a vacant position:—

> 'With reference to your interview we consider you unsuitable and cannot offer you the job':

whereas little is lost and a great deal may be gained by writing in the case of A:—

> 'We thank you for the medical certificate which we have received and are sorry to learn of your illness. We hope that it is not of a serious nature, and that it will not be long before you are fully recovered',

and in the case of B:—

> 'With reference to your recent interview, we regret that your experience and qualifications do not quite meet with our requirements, and we are unable, therefore, to offer you a position with the Company'."

So lawyers and scientists claim that they must often use complicated phrases because otherwise their meaning may become obscured rather than clarified. Here is a major difficulty which we, who are in charge of other human beings, should make a serious effort to overcome. We must be capable of understanding the meaning of scientific language; we must at the same time be able to translate this meaning into the everyday language of the groups we manage.

One manager told me how he had learned this truth the hard way. He said when he was new in his firm just after the war he used to give his instructions each morning to the girls on the production lines. He said he wanted very much to win their friendship and respect and he tried to put things clearly and simply and in as few words as possible. Nevertheless, he sensed that things were not going well. One of the girls told him why. "The girls think you're so stand-offish", she said, "you just say what you have to say and then you go off."

His clear and precise instructions were interpreted as a sign of unfriendliness by the group. They were used to a less scientific way of expressing themselves, and he was making the mistake of giving orders in his own language, instead of in the language of the group.

USING NOTICE BOARDS

Advertising Display Lessons

THIS misunderstanding often grows the longer the lines of communication are stretched. I expect many of you know the military tag about the general who sent back a message

PLAIN WORDS

Discussion Leader's last article on the use of words evoked much response from readers. Here we publish one which attacks verbosity and another defending it in certain cases. But the moral is clear: use language that the reader or listener would use himself.

Welfare Officers in Conference

Here Again It's the Human Touch that Counts

RECENTLY, at their conference in Birmingham, the Institute of Welfare Officers celebrated their tenth anniversary. The Institute, however, does not believe in conferences, their last one being held in 1951, and so it may well be that those who are not directly engaged in welfare work may have heard little about their activities.

Founded in 1945 as the professional organisation for welfare officers in industry, national and local government and voluntary societies, the aim of the Institute is to improve the status of welfare officers by establishing standards of knowledge, skill and personal conduct, and by giving professional recognition to those who, by training and experience, attain those standards.

The theme of the conference was "Welfare as a Profession"; but the outsider would immediately ask whether welfare could indeed be called a profession. He would ask, too, what standards of knowledge and experience and what code of professional conduct should welfare officers have and how can they be trained. But these were, in fact, the very problems which the conference had assembled to consider. In spite of ten years of existence, the Institute is not too rash to presume these fundamental questions already settled.

During the conference two papers were given. The first was by Miss Doris E. Newman of the Social Study Department of Selly Oak College on "Purposes and Approach to Welfare Work". The second was by Mr. F. E. Oldfield, chairman of the Executive Council, on "Problems of Education and Training for Welfare Officers".

Miss Newman said that she was aware that to some people the development of welfare was socially dangerous. They saw in it a loss of responsibility. She agreed that there does exist such a danger, and that new rights and privileges must be balanced by a sense of duty and responsibility. But she was convinced that the outcome of progress in social work would enable the citizen to impart more, and to become effective citizens.

The Welfare Officer must appreciate the ordinary problems of ordinary people. He must concern himself with the dynamics of social relationships. These will affect the status of welfare profession in the future, for he helps or restricts the objectives of welfare work by his effective contact with people.

If, for example, he sets up resentment or hostility, the disgruntled worker will affect others with his resentment. Thus he should have a day-by-day responsible approach, diligence and integrity, a respect for the reputation of those concerned and a respect for personal affairs. Above all, he should have an understanding of the purpose behind work which makes monotony bearable. In short, his conception of welfare must extend beyond the range of his present work. His own work should be seen as a function of the whole co-ordinated work of welfare.

The second speaker, Mr. Oldfield, explained welfare work thus: "We all find ourselves out of tune and at loggerheads with colleagues and families. We adjust ourselves; but there are those who can not, who lose morale. The welfare officer's job is to help just those people.

"Many a man in difficulty will say: 'If only I had £20', but he would shortly be back for more. One must deal with his emotions. The welfare officer is dealing with something intangible, and people do not always know that their emotions exist. He has to help those under his care to become more effective citizens, able to lead a full life, and to do this he must be highly skilled.

"The student who is going to deal with abnormal people must have a solid belief in good ordinary people. He must believe in himself, and he must have a personal philosophy. The student looks to the teacher for something definite; but the teacher must qualify, he has to be tentative. People love the black-and-white, neat phrases in the papers, and the student, too, may be impatient and adopt a ready-made philosophy and get on with it."

For those and other reasons, Mr. Oldfield believed that students would be well advised to gain experience of life in other spheres, at the bench or in the office, perhaps, before embarking on welfare work. He held that immature students believed in a logic of ought and had a tendency to form moral judgments. The "there but for the Grace of God go I" mentality was irreconcilable with welfare work. The student must check himself before he is of any use.

Summing up, Mr. Oldfield advocated the following:

(1) Maximum co-operation between all welfare bodies concerned with training.

(2) Maximum use of modern training techniques and aids.

(3) More attention paid to the adequate emotional development of students.

(4) Constant review and revision of what is being taught.

(5) More planned on-the-job training.

Management Through the Supervisor's Eyes (*continued*)

which passed verbally through many people. The original message was: "I am going to advance, send me reinforcements". The final version was : "I am going to a dance, send me three and fourpence"! Many managers are aware of this difficulty and try to provide for themselves regular direct channels of communication with different grades of workers, as in joint consultative meetings. In other firms managers are striving for the same effect by cutting down the numbers of intermediary managers so that, as one firm puts it, they aim to have only three layers "Management, Managers and Men".

I feel it is even more difficult to bridge this gap when the written word is used instead of the spoken word. Many difficulties have arisen around notices on boards. I once made a small survey of people's reactions to such notices. Some of the answers I got are very revealing. One main said: "When I was in the Services they *made* me read notice boards, so when I was a free agent I said 'they can keep their notices, they can tell me if they want me to know' ". Another man said: "I pass a notice board every day of my life, I have never stopped, and I have never seen anyone else stop either".

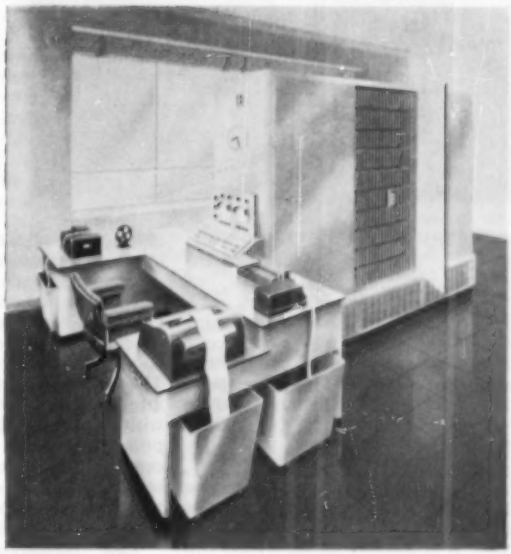
There seems to be quite a lot of hostile consumer reaction to notice boards. Yet we need this channel of communication in industry. What can we do to make it more palatable? People read advertisements—in the London tubes, for example—Why? The emotional appeal, the lay-out, the wording and the novelty of these advertisements all help to make them attractive. Can we apply similar principles to the industrial notice board? One firm divides its notices up into different categories, so one part of the board is headed "Management", the second "Standing Orders", and the third "Recreation". Other firms allow a special section to be devoted to Trade Union business. Write and tell us what you think about notice boards in your firm. Are they assisting communications between management and workers—or the reverse?

DISCUSSION LEADER

New Machines Offer New Prospects —*At All Levels*

By J. F. FEWINGS-TATE
Manager, Central Office Services,
British Petroleum Co. Ltd.

In this, the last article of the series, the writer predicts the status and future of the office worker in the decade to come when the "electronic brain" is accepted as a standard piece of office equipment. "They are still at the development stage," he says, "where there remains a great deal of mystery and misconception about their functions." He sees ahead, none-the-less, the elimination of drudgery and better promotion prospects—and also a challenge to management.



Shape of things to come. How Ferranti visualise an office setting for their **Pegasus** computor.

THE art, or profession, of prophecy has, at various times through recorded history, shown itself to be peculiarly unrewarding; many of those who were right received small thanks for their pains, whilst those who were wrong could, one presumes, only rely on the fact that human memories are short if they wished to remain in the business. It may be that the 20th century seer finds life easier through having at his disposal the devices generically styled "statistical methods", which find their popular applications in Gallup Polls, quizzes, listener research and the like. Nevertheless, the calling of prophet remains still hazardous, and especially so when prescience is demanded in a sphere where few facts have been clearly established. At least, so I felt when the Editor asked me to consider, in this third and last article, the future of office workers with special relation to what are popularly called "Electronic Brains."

In the first place, comparatively few of these devices are actually in use commercially or, indeed, scientifically in this country, as compared with other classes of calculators, and still fewer have been in use long enough to enable firm conclusions to be drawn as to their effect, either on methods or on the people who work with them—firm conclusions as opposed to intelligent presumptions. Secondly, they are still at the development stage where there remains a great deal of mystery and misconception about their functions. This latter point is exemplified by the use of the word "brain" in their popular name: the connotations of this word and the suggestion of an immense achievable reduction in human effort, combine to suggest that "thinking" machines have at last been evolved.

The Office Management Association took a positive step at this year's Annual Conference by inviting a representative group of computor manufacturers to expound their hardware and its actual and potential uses. Basically a digital computor is a device capable of performing the arithmetical functions of adding, subtracting, multiplying and dividing at the speed of light—or more accurately at the speed of electricity. The vogue word "electronic" seems to have attracted itself to the machine because the operations are motivated by electrical charges (using the phrase in its non-technical sense) rather than by mechanical or electro-mechanical means. The machines can store vast quantities of information and instructions which are automatically called into use as required.

As to the power to "think", computors can certainly be made to play games reasonably well, including noughts-and-crosses, draughts and elementary chess. They can also, without human intervention, follow instructions for the whole course of any task that has been set them; intermediate results can be compared with preset standards, and in their further activities will be guided by the result of that comparison. Yet—a

A modern office setting of today. Part of the ledger posting department of the overseas branch of the Midland Bank.

thinking machine? As Dr. Bowden well says: "if it is true to say that a machine can do the work of several hundred ordinary men, it is equally true to say that no machine is ever likely to undertake the work of those few extraordinary men whose dreams and whose efforts are responsible for the growth and the flowering of our civilisation."* In short, computors can do as they are told: they can not *originate* anything.

Coming down, so to speak, to the office floor, what is the computor likely to be able to do or what, indeed, is it already doing which will directly affect the clerk? For our purpose it suffices to say that there is virtually no accounting or recording routine in industry and commerce to which the system may not be applied; it will do all that punched cards can do but do it much faster, and the computor will demand no more than that the basic information be given to it. It will comply with the instructions it has received at the same time and will check itself en route—in fact, in the words attributed to the late Miss Annie Oakley: "Anything you can do, I can do better".

Moreover, this basic information in the form required by the computor can be obtained automatically as a by-product of a writing function. Typewriters, adding machines and simple desk calculators are punching tapes of the teleprinter pattern simultaneously with their normal recording function. These tapes eliminate the need for the separate stage of converting the written word to the coded word (e.g., the punching stage in an ordinary punched card installation), cutting out at the same time a stage in which error could occur.

The Americans, with their flair for titles, have given the term "Integrated Common Language Data Processing Machines" to an installation using coded tape devices of this kind. The use of this method of feeding in information to the computor carries with it the possibility that one computor can serve a large number of centres, providing only there is a telegraph line to those centres. Outputs can be similarly transmitted to whom they are needed.

The yardsticks by which the potential savings arising from the use of computors can be measured are not yet commonly available; it has, however, been established that a small computor costing, say, £15,000 can handle a payroll including labour costings and statistics with 60 per cent less staff than the best other methods available. On a payroll of 10,000 such a saving would cover the cost of the computor within the first year, and the machine's time would, even so, only be half occupied. Right at the bottom of the scale, it is further claimed that the use of a computor for a payroll of only 2,500—which might occupy the machine for only six hours a week—would, in fact, if the machine were used for no other purpose at all, show a saving on the costs of any other method—leaving the rest of the week for other productive work.

Outlay and Return on a Computor

1. *A small computor would cost about £15,000.*
2. *It could handle the payroll, including costings and statistics, with 60 per cent less staff than best other methods available.*
3. *On a payroll of 10,000, it would cover its cost within a year.*
4. *Even on a payroll of only 2,500 it would show a saving.*

It may be taken for granted for our present purpose that the use of computors and the associated automatic machinery which is now available will reduce the number of office staff at junior levels by proportions which will vary from job to job, from, say, by 50 per cent to 80 per cent. If we can assess the qualitative effect we may then be able to form some general idea of what *might* be the effects of the arrival of a computor amongst those engaged in clerical operations. **In the first place one would not be far off the mark in describing a computor as the greatest drudgery remover since the invention of the vacuum cleaner**: anybody who, on adding up a column of figures three times for checking purposes, expects as a matter of course to get three different results will appreciate this point.

In the first article in this series we spoke of the obligation which conscience and expediency together place upon the enlightened employer these days to make best use of all available man-power; it was suggested that we should let machines do all those things which they can do and which they so often do more efficiently than you and I. Here, surely, the computor shows itself to be the device par excellence—it can perform in an hour work that has taken months by other means; in weeks it will do the work of years or tasks that have never even been undertaken for considerations of time alone. But what sort of people will service this amiable Frankenstein?

Initially, as new tasks are being turned over to it, the key posts will include a mathematician who can present more recondite problems in mathematical form: his full-time services can certainly be dispensed with later. A supervisor of comparable status to the person in charge of a punched card installation, who will set up what are called "programmes" for each of the tasks which the computor will be called upon to perform. This "programme" is a one-time function in respect of each job and the main duties of the supervisor

* "Faster Than Thought" ed. B. V. Bowden, M.A., Ph.D.—Sir Isaac Pitman & Sons Ltd.

will be the planning of the work for the installation, and the responsibility for the promptness and accuracy of the output. Apart from an assistant supervisor to provide leave relief, etc., the rest of the staff will be of the junior machine operator category and their number will depend upon the volume of work, the method of feeding in information and the general level of mechanisation in the office. They will be directly comparable in status to punch operators in a conventional installation.

So much for those who will service the machine. Now, when we turn to consider the effect on those whose present work is replaced by the machine output, we shall find it remarkably difficult to generalise. It is clear that the classes of work that will chiefly disappear are routine recording and arithmetical tasks.

The matter goes further than this, however, for it is reasonable to assume that any company embarking on the not inconsiderable expenditure involved—say £15,000 as a minimum—will have gone to some trouble in reviewing the existing methods of performing the tasks which they propose to transfer to the computor. It is not unlikely that various operations which, under existing methods, amount to a self-contained stage will disappear as such when computor techniques are employed.

Data Processing

The term "data processing machine" is really far more accurate and descriptive a title than "electronic brain" or "digital computor", for this is just what is going on where such machines have been installed for office purposes. In my view there is no doubt that a complete re-orientation will take place in office organisation and procedures in the next few years. Management will have to consider what it really needs to know *factually*, and without regard to the form in which information has hitherto been presented. The data processing installation will then take the basic facts of the business and will proceed to operate upon them just so far as is necessary to meet control requirements. So we may expect a reduction in the supervisory and lower management levels in the clerical grades—all those who direct intermediate operations which represent but a stage between the incoming facts and the digested (indigestible?) results presented to management.

Still in the insecure role of prophet, one may venture to predict that office staffs will tend to fall into two main classes—the feeders-in of basic information and the interpreters of the answers produced by "automation". It may not be so difficult to find the basic information feeders; maybe the gap between school and marriage can be most pleasantly filled in such a post—or the unfortunates who find themselves seeking employment past the age of fifty and who are not so much concerned with long-term prospects, would welcome such an opportunity. In this field your office manager will continue to find himself in direct competition with the factory as he does at present; the terms of the competition are known, and the office must be given suitable weapons to fight with in order to secure its share.

So the picture of the "electronic office" of three—five—ten years hence, as it seems to me, would be one of basic operations bearing a strong resemblance to the repetition work of the production line on the one hand. On the other these activities would be overseen and interpreted as to results by a comparatively small group of specialists—accountants, sales executives, production controllers and the like.

Competition in the senior levels would be keen, for promotion to top management would come from that group, although it seems that the opportunities for promotion may well be high in relation to the number of staff employed. Indeed, it has been remarked—though the statement is not here put forward as having been officially verified—that these enhanced promotion prospects are already becoming effective. In some of the big banks, it is said, a young man entering with normal secondary education has now one chance in three of securing a managership; before the war those odds were approximately ten to one. The key lies in the reduction in the numbers of the men of this calibre now being recruited; that is to say, the size of the cake is the same—or even larger—but there are fewer people asking for a slice!

Of all kinds of prophet the starry-eyed is perhaps the most irritating; yet I am prepared to record my belief—not just a pious hope—that the advent of the machines to the office will open up a new prospect of both material prosperity and scope for the use of those abilities with which all mankind is endowed—abilities which place him as much above the machines of today and tomorrow as they do above brute creation.

HOW TO GET A JOB

By

Alan Bird, personnel manager, *Price Brothers & Co. Ltd.*, Wellington, Somerset, who assures the editor that this sort of thing has happened to him.

MAKE suitable enquiries until you find the company which pays the highest rates. Study this carefully in relation to the nature of the work—if the work is too hard, choose the next company on your list. In no circumstances visit the Ministry of Labour first, as they have many unsuitable propositions, and the clerk only tends to be irritable, and sometimes positively rude if you decline his advice (in addition to which, he may even try to stop your benefit).

Having got this far, do not go straight to the company which you are going to honour—it is possible you may not get past some sort of Secretary Person, who would not appreciate your true worth. No, make careful enquiries until you find out the personnel manager's home address. Then consider the best time to visit him (it is not usually advisable to 'phone him first, as this often causes difficulties). As he will probably be out during the evening, go at about 11.30 p.m. or when he is getting his tea.

When you get to the door, ring the bell sharply to denote the importance of your business. If you are unfortunate, you may find that his wife will answer the door. If this happens, announce that you wish to see "Mr. Smith" on urgent business. If his wife persists in enquiring the nature of your business, you may, of course, be forced to tell her, in which case she will probably say that her husband is "out", or that he is getting his tea. If the first answer, this is probably not true, so you must just stand there with a determined expression on your face; in the latter case, this is a paltry excuse and cannot be accepted. If you are asked why you cannot attend at his office, merely say that it is not convenient for you. It is true that certain interviews end abruptly at this point.

However, if you can get an appointment at the manager's office on the following day, you have made your point; and you can be sure he will remember you and treat you in the manner you deserve.

At the factory, do not be put off by the Secretary Person, but announce that you wish to continue your discussion with "Mr. Smith" which you began at his home last night. When you enter his office see that you blow a cloud of cigarette smoke into his face (this will show that you are the manly type), and state what sort of job you require, and that you are quite willing to commence work as a foreman, or even a charge-hand, and work your way up (this will show him that you have ambition).

The fact that this is as far as you probably progress just goes to show that there is something seriously wrong with the personnel profession. ALAN BIRD.

The Case Study As A Training Aid

By H. NEWMAN, B.A., M.Litt.

2—How To Use The Different Types

In this second article of the series, the writer discusses how to make the best use of the case study. The person conducting the course, he stresses, should never let his own view intrude and should present problems where there is a nicely balanced set of alternative courses of action.

LAST month I discussed the various types of case study, viz., practical examples, limited objective cases, problem cases and comprehensive cases.

In general, it is accurate to say that there is a positive correlation between the complexity of the case study and the student level at which it can be used to the greatest advantage. The practical examples are suitable for any level, but particularly for those students without business experience. The limited objective cases are most useful for lower supervisory levels. Students drawn from the higher supervisory levels and from middle management derive the greatest benefit from problem cases, while comprehensive cases are best suited for post-graduate students or top management.

If the various commercial sources cannot provide the case studies needed for the group being trained, then the teacher can write his own.

He can usually find source material in his classes or among his business friends. No person in commerce or industry has failed to be involved personally at one time or another in some management problem. An argument between the office boy and the filing clerk may reflect management problems as clearly as a controversial discussion among the directors at a Board Meeting.

There are several important points for the writer to bear in mind. He should try to include information about the company's background and to let the personalities in the case reveal themselves through their own actions and comments of others rather than in his editorial comments. He must always consider himself a disinterested reporter of the facts of the situation, and his own view should never intrude. He must try to avoid the temptation to make the "clues" to the problem too pointed or obvious.

It is particularly important for the writer to present a problem where there is a nicely balanced set of alternative courses of action for the student to choose, because only in this way can the greatest value be derived from discussion of the case. Conversely, the teacher must avoid the "atrocity story" where everything is wrong.

One case, for example, described a firm employing a thousand workers where there was no personnel officer, no promotion or transfer records, no grievance machinery, no welfare facilities, no systematic selection procedure, no overall wages policy except that imposed by the union which represented only a small proportion of the workers. Apart from the fact that they found this true account quite incredible, there was nothing for the students to do but suggest the perfectly obvious remedies. This type of case limits discussion and is a far less efficient method of presenting factual information than the lecture.

4 Teaching Points

1. *Keep the atmosphere informal.*
2. *Avoid the "atrocity" story where everything is wrong.*
3. *Be as unobtrusive as possible. The students should do most of the talking.*
4. *Use role playing where possible. It prepares students to speak in public.*

In running a case study session the teacher must remember that he is there to encourage others to talk not to put forward his own views. He should take the part of an effective chairman by keeping the discussion on the subject, by giving everyone a chance to be heard and by reviewing and summarising the group's conclusions at various stages, particularly at the end. Moreover, he must perform all these functions as unobtrusively as possible.

He has other responsibilities as well. He must keep the session within the specified time limits. If he has control of the group's size, he should try to keep it small (ten is a good number). The teacher must try to create an informal atmosphere. He must make certain that the members of the group know one another and that they are intimate with the details of the case. He should know what special information each member can contribute as a result of his particular training or job. He must then be able to capitalise on this knowledge by the adroit use of questions when the discussion has flagged or needs redirection.

However, even before he chooses the cases, the teacher must decide how he is going to use them.

Are they to follow lectures as aids to the student in learning how to apply factual and theoretical information to the real life situation? Or are they to be used to integrate the various specialised subjects into the total management picture? Should they form the basis of part of a course designed to teach students how to sell their ideas to higher management?

A case study sets problems ideally suited to written report assignments. Furthermore, by introducing an element of role playing, where for example the student reports verbally on the same case to a Board of Directors composed of other members of his group, the teacher is giving his students an opportunity to gain experience in public speaking and to learn the difference in technique between the verbal and written presentation of the same material.

Their unique value for examination purposes must also be considered by the teacher because case studies come closest to reproducing those problems which a manager must face on the job. His performance in case study problems, judged in conjunction with the teacher's personal assessment of his success in the group, can provide a more accurate guide to the individual's ability, potential capacities and the progress he has made during the course than any other measure yet devised outside the job itself.

(To be concluded.)

People At Work

I.R.U.s Take 60,000th

IN May this year the 60,000th person to take up a course of industrial rehabilitation provided by the Ministry of Labour entered an Industrial Rehabilitation Unit (I.R.U.).

The aims of the 15 I.R.U.s set up by the Ministry of Labour and National Service are twofold.

First, to restore to the fullest possible measure of working fitness men and women who have been sick or injured and who need help in getting back to work. Second, to give guidance where necessary as to the kind of work most likely to lead to satisfactory resettlement.

The service is also available to a limited number of able-bodied persons, older workers and young people with special employment difficulties. Most of the I.R.U.s are non-residential but residential accommodation is provided at Egham (Surrey) I.R.U., and at a few others.

Nearly 80 per cent of those completing courses obtain employment within three months of leaving the Unit or begin courses of vocational training, and a follow-up which takes place six months later shows that nearly 80 per cent of these are satisfactorily resettled in employment or making good progress in training.

Two-Way Traffic

WHEN the Italian liner *Auriga* docked at Plymouth a few weeks ago, on board were 739 West Indians in search of work. As they stepped ashore they passed 20 of their countrymen waiting to embark in the same ship to return to Jamaica. These included two brothers who had been three years in Britain.

Unable to find employment in their trade as working jewellers, they took up work as crane drivers at a Sheffield steelworks. Although the pay was good, they said that the ice, the snow, the fog, "all things we had never known in Jamaica", were too much for them.

A special survey of the coloured worker in Britain appeared in the April issue of this journal.

Classification Probe

THE Minister of Pensions and National Insurance, Mr. Osbert Peake, has asked the National Insurance Advisory Committee to review the classification of persons engaged in part-time employment and the liability for contributions in respect of such employment. The Committee will consider representations on the question. Such representations should be in writing and should be made before August 10, 1955, to the Secretary, National Insurance Advisory Committee, 10, John Adam Street, London, W.C.2.

The National Insurance scheme provides for three classes of insured persons, namely (*a*) employed persons, that is those working for an employer under a contract of service, (*b*) self-employed persons, and (*c*) non-employed persons. The 1946 Act enables regulations to be made under which this classification can be modified where it appears to the Minister to be desirable to do so because of the circumstances of a person's employment or otherwise.

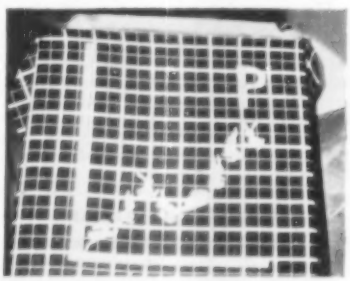
In particular, an employed contributor's employment can be treated as self-employment or disregarded where such employment is of a subsidiary nature, or the insured person only engages in it to an inconsiderable extent. Some 40 or so different types of employment have been treated in this way.

N.I. Income Limit Up

THE income limit under which self-employed and non-employed people could apply to be excused from paying national insurance contributions has been raised from £104 a year to £156 a year from June 6, 1955. In assessing income for this purpose regulations made provisionally by the Minister of Pensions and National Insurance will enable Family Allowances, allowances for orphans and fatherless children under the War Pensions scheme and certain other items to be disregarded.

Useful Flannel

STATISTICAL and mathematical demonstrations are greatly simplified by the use of flannelboard. Each stage of a curve can be built up and explained the moment it is being talked about as, for example, in this light-hearted pro-



ductivity chart for foremen and workers. The material is a squared flannelboard designed by the Visual Aids Section of the European Productivity Agency, and the idea was one of many uses of audio-visual aids recently demonstrated to representatives of British industry.

Stop Watch For Mines?

MINERS may soon be timed by stop-watches, and their payment based accordingly for a variety of jobs. One of the few mining engineers on the staff of the National Coal Board who have taken courses in time and motion study, Mr. C. F. Palmer, has given a paper on this subject to a meeting of mine engineers.

Mr. Palmer said that he was convinced that the application of time and motion study methods to the work of coal getting and handling of materials and machinery in the pits would lead to higher output, lower costs and higher wages, but he was also alive to the difficulties and to the reserved, possibly hostile, attitude of the miners. "The stop-watch is something like an anathema to the miners", he said, "because it has been abused in too many cases in the past in other industries."

He said that the N.C.B. have considered some step necessary to win the confidence of the men and their union officials, and are prepared to allow union secretaries to go to the same lectures as he attended, take part in the discussions, and attend the course. "If this is done and the union officials are shown that there is no intention of taking it out of the men, then I think they would really sense and believe that we are out for the betterment of the industry and that it must be for the betterment of the men as well."

Shop Floor Wins

FACTORY managers and superintendents earn almost $2,000 a year more, on the average, than their counterparts in the sales field (regional and district sales managers), according to the American Management Association.

This comparison is the reverse of that usually found on the top management level. Previous A. M. A. Surveys have shown that company top sales executives are usually higher paid than top manufacturing executives.

The 1955 middle management study reports that the average annual salary of regional and district sales managers is $12,000, compared to $14,000 for factory managers and superintendents. The average age of men in these four positions is 45 years; average length of service in their present jobs is four years.

Output Up Again

THE index number of industrial production (1948=100) prepared by the Central Statistical Office, is estimated provisionally at 140 for March, 1955 (the early estimate was 139-140) compared with a revised figure of 139 for February, 1955 (the provisional figure was 138). Figures for the corresponding months a year ago were 132 for March, 1954, and 130 for February, 1954.

On the basis of information so far received the index for all industries for April, 1955, is expected to be 130—131. The index for April, 1954, was 124.

Works' Whitsun Visit To Riviera

FOR their Whitsun outing the employees of *Stoddart and Hansford Ltd.* made a trip to the South of France. It is not yet their practice, however, to make a regular trip to the Continent each Whitsun.

Two years ago a trip to Paris was organised on a fifty-fifty basis, the firm providing about half the cost. The office and factory personnel taking part in this trip immediately began to save for another outing which, because of a variety of circumstances last year, had to be postponed. But it was agreed to continue the saving, which was at the rate of 2s. 6d. a week, and this trip was arranged for the Whitsun holiday.

It was soon apparent that for the cost of a flight to Nice and back, with three days in the South of France, the members of the party could obtain a fortnight's holiday on the Continent using other forms of transport. When this was pointed out, however, the party refused even to consider any other arrangements.

Using the normal cheap night flight the party arrived at Nice at 3.45 a.m. on Whit Saturday, had a few hours sleep, and were out and about in Nice during the morning. In the late afternoon a special coach took the party via the Middle Corniche to Monaco and Monte Carlo, visiting the many places of interest, including the Casino.

On the following day a coach took the party along the coast road of the Riviera for about 100 miles, passing through all the well-known resorts, returning to Nice in the evening. The party were left to their own devices until Monday afternoon when they visited the scent factories at Grasse and Gorges du Loup. Finally they left at 2.30 a.m. for London, reporting for work at the office and factory six hours later.

One of the advantages of such an elaborate outing with the staff making a contribution is the considerable time during which interest is maintained. Afterwards, it is a moot point as to whether the obvious satisfaction of those taking part is of any help in personnel relations or not. This particular trip was not organised with very much thought of personnel relations, but the reactions of the party to an experience which few, if any, of them could have obtained in any other way made it well worth while.

Management Bookshelf

Unions in U.S.A.

American Labor Unions—An Outline of Growth and Structure. *By Reed C. Richardson.*

FOR those who boggle at the immense amount of literature on the subject and yet would like to have a working knowledge of how labour is organised in the greatest and most efficient producing country in the world, this pamphlet is just what is needed. It is published by the New York State School of Industrial and Labour Relations, Cornell University, and the text is contained in 19 pages. Of particular value are the sections on the historical evolution of labour structure and on union federations in the U.S.A. One fact which does emerge is that, powerful though the federations are, there is still considerable independence enjoyed by groups and individuals in organised labour.

Reasonable Absence

Absence from Work. *British Institute of Management, 2s. 6d. post free.*

LOSS of production time and a general lowering of efficiency through absence from work is widely regarded as a serious problem for industry to-day. Nevertheless until recently no full-scale attempt has been made to discover the rates of absence which may be considered reasonable and to provide a standard method which may be used for comparison between one company and another.

To remedy this situation the British Institute of Management in 1953 undertook an investigation into "Absence from Work, its Incidence, Cost and Control." The first step in the investigation was a pilot survey to test methods of recording and analysis. This stage has now been completed and the Institute has published in "Absence from Work—Recording and Analysis" a standard system for compiling evidence on the subject.

The method recommended will show information in a form suitable for inter-firm comparison as well as demonstrating the nature of the problem within the individual concern itself. The booklet contains an invitation for undertakings to participate in a nation-wide survey which will indicate the extent of the problem and provide suggestions for some methods of control.

Electronic Guide

Radio Isotope Instrumentation and Accessories. *By Denis Taylor and A. G. Peacock, Scientific Instrument Manufacturers Association of Great Britain Ltd., 120 pp.*

THE potential user of radioactive isotopes will find this brochure of help in selecting electronic equipment. The greater part of the book is devoted to manufacturers' announcements arranged in alphabetical order. It is a selection which outlines the scope of the different contributing manufacturers and does not attempt to list their complete range of prodicts. A small section of useful information and data is also included.

Dunlop Reach 90,000

JOINT consultative arrangements with their employees is working smoothly at all Dunlop's factories, Lord Baillieu, chairman, told the annual general meeting. It continues, he said, to provide valuable assistance in the improvement of working conditions, welfare and productivity.

Their total number of employees now exceeds 90,000 ; in the United Kingdom the number increased in 1954 to over 46,000 which was 3,000 more than in 1953 and 91 per cent above the 1945 total.

Bournville Editor Retires

MR. W. E. COSSONS has retired after 18 years as editor of the *Bournville Works Magazine.* For 16 years previously he had been assistant editor. In addition to his magazine work Mr. Cossons played an important part in the company's press and public relations activities and was responsible in whole or in part for numerous books and reports sponsored by the firm. He was the author of numerous articles on Bournville and the industry in general and entertained visitors from all parts of the world.

APPOINTMENTS

MR. E. A. BARNARD has been appointed chief personnel officer to *Thomas De La Rue & Co. Ltd.*, and **MR. W. R. ROBINS** his assistant.

MR. V. J. BURDEN has been appointed assistant to **MR. NYQUIST** (Personnel Officer) of *Batchelors Peas Ltd.* Mr. Burden comes from the associate company *Joseph Crosfield & Sons Ltd.*, of Warrington, where he was a sales supervisor.

MR. H. FLETCHER, of *Leyland Motors Ltd.*, who joined the company's employment department in 1924 at the age of 17, has now been appointed employment manager of the company. He became employment officer at the Leyland-managed Ministry of Supply factory in June, 1953, and was appointed acting employment manager at Leyland in April last year.

MR. LESLIE GAMAGE, vice-chairman and joint managing director of *The General Electric Co. Ltd.*, has been re-elected president of the Institute of Export for the thirteenth year in succession.

MR. JOHN F. JAMES, of Nottingham, has recently left for Gambia, the oldest, most northern and smallest British territory in Africa, to take up a post under the International Labour Organisation Technical Assistance Programme. He will help to increase the efficiency of local supervisors in commerce, industry, agriculture and public works.

Mr. James has been a T.W.I. trainer since 1948 with the Ministry of Labour and National Service, and has had more than 25 years' experience in industry. He is a Fellow of the British Corporation of Industrial Managers and a Member of the Institute of Industrial Supervisors.

How To Get Your Catering Staff Trained

By BASIL C. EDWARDS, B.A., Hon.F.H.C.I.
Secretary of the Hotel and Catering Institute.

I WOULD say that the answer lies in sending catering staff to the nearest technical college or Polytechnic offering catering courses, where they can be taught quietly and painstakingly, away from all the hubbub and distractions of a commercial establishment, by instructors who are not only highly experienced in trade cookery and other catering subjects, but who are also skilled teachers.

I would also suggest that it is in the interests of employers to release staff during working hours for such training, without loss of pay or time-off. Where this is impracticable then I would suggest that classes should be attended partly in the employers' time and partly in that of the employee. This latter arrangement has the psychological advantage of inducing the employee to make his or her own sacrifice in order to gain the personal reward of increased skill and knowledge, together possibly with the acquisition of a nationally recognised qualification.

The courses of training that the Hotel and Catering Institute recommends, particularly for kitchen staff, are those of the City and Guilds of London Institute—the "Catering Trades Basic Training Course" (No. 150) followed by the course in "Cookery for Hotels and Catering Establishments" (No. 151). The former takes two years of part-time study, the latter one or two years.

It is not, however, essential that the Course No. 150 be taken as a preliminary to No. 151, provided that the employee has already one year's experience of trade cookery approved by the City and Guilds of London Institute. Then entry to the No. 151 examination may be direct and, indeed, this is commonly done by employees in industrial catering establishments. These courses are available on a part-time basis at more than 100 technical institutions throughout Great Britain, so that managements should have little difficulty in finding a technical institution to which their staff may be sent.

Many technical institutions offer courses of a mainly practical nature. These are of value to those who cannot cope with an examination particularly a written one involving theory of cooking and catering.

Having taken planned courses of training leading to nationally recognised certificates in well-equipped training kitchens and training restaurants, under skilled and long experienced instructors from the industry, they will have gained a sound knowledge of the basic principles of good cookery and service, so that they will need less supervision; they will have learnt the proper use and care of equipment which will mean less risk of accident and lower maintenance costs; they will have improved their manipulative skills and increased their general efficiency, so that their speed of production will be greater; and, above all, they will have gained greater interest and pride in their jobs.

WHY CANTEEN COOKS SHOULD TAKE THIS COURSE

1. *They will need less supervision.*
2. *They will learn the proper use and care of equipment.*
3. *Safer working will result.*
4. *With the increase in skill, output will go up too.*

To-day, the tempo of production is such that there is not time to give the lesser skilled worker the painstaking and systematic instruction that is necessary for improvement, nor in many cases are there enough skilled supervisory staff to give the instruction had they the time. Again, it is not given to every senior member of the staff however skilled and proficent to be able to impart knowledge to others.

I would appeal, therefore, to managers and employers to prepare *now* to seize the opportunity which will be available to them in September next when the new classes start, to have their catering staff well-trained. I suggest that senior members of the staff should talk *now* to the less skilled workers and point out to them the advantages of technical training and persuade them to enrol for appropriate courses.

Any queries regarding type of course to be taken or availability of courses in a particular area should be sent to me at the Hotel and Catering Institute, 24 Portman Square, London, W.1. A "List of Technical Institutions offering Courses of Training in Catering Subjects in 1955-56" may be had from the above address, price 3d.

CANTEEN ADVICE BUREAU

Prices and Subsidies

OUR canteen caters for a total of 110 staff, and 180 hourly-paid workers, served in separate rooms and from a central kitchen. In addition there is a dining room which caters for 10 senior executives and directors, which is attached to the canteen building.

The kitchen staff includes one manageress, one male chef, four full-time kitchen assistants, and four part-time workers (who are in fact available for five hours each day).

Full, hot meals average 45-60 in the works canteen, the remainder of the workers buying snacks, sandwiches, etc., or bringing their own packed lunch. Of the office staff 105 buy a full, hot meal. The chef, who is also a confectioner, produces first class cakes and pastries for sale.

Prices vary in the two sides of the canteen, and are as follows: Soup, 3d.; main course, 1s. (office side, 9d.); dessert, 4d. and tea, 2d. There is thus an additional subsidy to office staff, the history of which is irrelevant. Apprentices (23) and office staff under 18 years of age pay 1s. for their meal.

A trolley service delivers a cup of tea to office staff, free of charge, during the morning, whilst a charge of 2d. per cup is made in the afternoon. The works personnel have a morning break and buy tea and snacks in the canteen.

The percentage of hot meals served on the works side is low, but there is a tradition of sandwich carrying in the engineering

trade in this area. The standard of meals is fairly good—as can be judged by the usage of office staff. This is not to say that we do not have any complaints.

One further important point—because of the position of the factory (off a 'bus route) only a very few individuals prepared to cycle a few miles can take their mid-day meal at home.

The canteen was new seven years ago and, although the best available equipment was installed at the time, it has already been necessary to replace some, and much more will need renewal in the very near future. (A typical monthly trading account is attached, and this shows that the takings are not even covering the price of food).

We have consulted H.M. Factory Inspectorate Canteen Adviser who has been very helpful. We should, however, be grateful for your comments, in particular on the following points:—

(a) Our price list—how does this compare with other canteens?

(b) What do other firms regard as a reasonable subsidy?—i.e., a reasonable loss allowing for the fact that the building, light and power are provided free, but the replacements of utensils and equipment are included in the accounts.

(c) Do the sums spent on grocery, meat, fish and provisions represent reasonable buying as far as it is possible to judge from such bulk figures?—(L.C., Northampton).

IN answer to the queries contained in your letter, I should say that:—

(*a*) Your price list is average, except for the charge for the main course which ought to be nearer 1s. 3d.

(*b*) Subsidy. It is extremely difficult to arrive at an average subsidy. The policy of the firm and the quality of the meals differ so much throughout industrial canteens. In these days many firms are satisfied to recover food costs only.

(*c*) Reasonable buying. The figures which you give need to be qualified by examples of the kind of menu produced. (It is obvious that the figures for April are a vast improvement on the average for the preceding five months while the average takings remain constant).

I should suggest that you keep your canteen trading account for food costs and takings and that you show other expenses in a profit and loss account. Do not overlook the charge for free canteen staff meals. I suggest that you cut down your expenses on repairs and renewals and on cleaning materials, if this can be reasonably effected. I don't like the cost of your ticket system. There seems to be no way of showing how much food is used and takings accrued from the chef's cakes and pastries. Why not have monthly columnar figures for comparison of accounts?

New C.D. Post

The Home Secretary, Major the Rt. Hon. Gwilym Lloyd-George, M.P., has decided to create a new senior post of Regional Civil Defence Officer in each of the Regions of England, and a post of Civil Defence Officer for Wales.

Industrial Catering In United States

BRITISH EXPERT ON FACT-FINDING TOUR

MISS WINIFRED McCULLOUGH, Senior Canteens Adviser of the Industrial Welfare Society, visited 50 factory and office cafeterias on a recent study tour in the U.S.A. Of these, 5 only operated without financial loss, these being Government office cafeterias comparable with our Civil Service luncheon clubs. Twenty served coffee, cakes and rolls during the morning and afternoon period, either in the cafeteria or from wagons pushed around the workshop. Eighteen others made provision for short coffee breaks by authorising the installation of vending machines in corridors, rest rooms, etc., from which coffee, soft drinks and light refreshments could be purchased. These machines are filled and serviced by concessionaires who remit some percentage of their profits to the cafeteria of the firm.

All fifty firms offered hot meals either at mid-day or at the long break in each shift. The amounts by which these meals are subsidised varies greatly but is considerable in all cases. One firm, for example, reckons it as "twenty-five cents from the company for every dollar spent." Another has established the cafeteria budget at $50 (£18) per employee per annum. The average is perhaps in the neighbourhood of $30 (£11) per employee per annum.

The greatest difference between American cafeterias and those in this country lies in the far better equipment there: the emphasis on labour-saving devices and easy to clean surfaces. Far more canned, ready prepared and deep frozen foods are used there, and the higher cost of these is claimed to be more than offset by savings of labour.

It would be true to say (as far as any generalisation is true) that raw materials are cheaper than here, but labour far more costly. The food cost expressed as a percentage of takings is usually 50 per cent or less, but the wage cost is always more than 40 per cent and often more than 50 per cent. Standards of cleanliness are high but so are the standards in canteens here. Food is good but no better than ours.

It is in appearance that American cafeterias excel, in equipment and in their forthright, objective, matter of fact attack on problems and difficulties. The percentage of employees who use the cafeterias is higher than here. This is partly due to higher wages. It is also without doubt due to the fact that the American cafeteria tries to find out what its captive customer wants and, having found out, hastens to sell it to him.

The Workers' Share In Capital

I.C.A. To Discuss Employee Shareholding

THE twenty-fifth summer conference of the Industrial Co-partnership Association is being held this year in Oxford. Its theme is "The Workers' Share in Capital" and the papers to be read at the conference should give a realistic and factual survey of the experience of industrial enterprises in the development of employee shareholding. The decision to devote the conference to this theme was reached on account of the widespread interest in employee shareholding caused by the decision last year of *Imperial Chemical Industries Ltd.* to adopt a form of profit sharing designed to lead to the holding of open-market ordinary shares in the company by the great majority of its employees.

It is the concern of the Industrial Co-partnership Association, which has maintained a survey of such matters for seventy years, to make sure that any management that may be contemplating developments along these lines should be as fully informed as possible of the implications of the various means of assisting employees to become owners of capital. Mr. J. Ward Daw, director of Industrial Co-partnership Association, stressed that there is no perfect or ideal way of achieving this end; but the Association adopts the rigid principle that it lays before enquirers all it knows, or guesses, about the unwelcome aspects of the various plans available, and does its utmost to ensure that difficulties encountered have been foreseen and accepted as deliberate risks.

This year's conference will be revealing and useful, but the Industrial Co-partnership Association is, one gathers, a little regretful that some companies with specially important experience were not able to take part in it. The reasons for these refusals were compelling. They included reluctance to re-open old issues and revive memories of old disappointments among employees for whom the plans of some companies proved less beneficial than their authors had hoped at the outset. Some companies were also unwilling to draw public attention to current weaknesses in their position arising from unforeseen developments in the internal situation which have made the form of employee shareholding adopted many years ago unsuited to their current needs.

Although the lessons of these particular experiences cannot be publicly paraded, they are not overlooked by the Industrial Co-partnership Association when advising those who turn to them for information. The Association makes no charge for the services it renders, and derives its support from companies and individuals (including a growing group of employees who benefit from co-partnership plans) who recognise the value of its work for the improvement of human relations in industry.

A clean soft dry towel for every pair of hands

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5/- per roll of towelling. Minimum usage only one roll per cabinet per week. Installation is free. Maintenance is free (two or more cabinets). No replacement charges. In fact there are no other charges whatsoever.

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Those few shillings give 180 pairs of hands an honest-to-goodness dry. Benefit staff and visitors alike. Give you 45 yards of *goodwill*. And what an infinitesimal price to pay for a clean bill of health!

What are your particular needs? We'll be glad to discuss them — without obligation.

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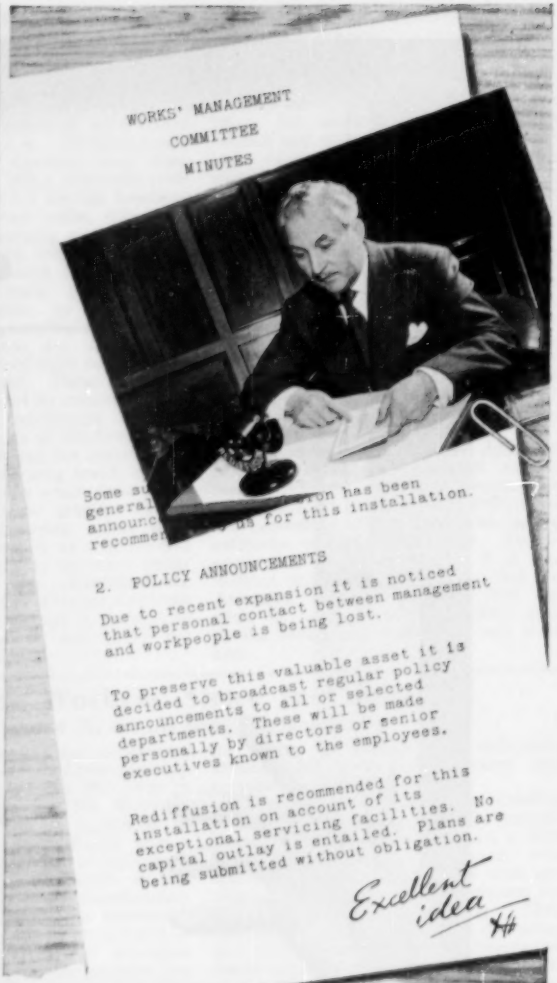
WORKS' MANAGEMENT
COMMITTEE
MINUTES
2. POLICY ANNOUNCEMENTS
Due to recent expansion it is noticed that personal contact between management and workpeople is being lost.
To preserve this valuable asset it is decided to broadcast regular policy announcements to all or selected departments. These will be made personally by directors or senior executives known to the employees.
Rediffusion is recommended for this installation on account of its exceptional servicing facilities. No capital outlay is entailed. Plans are being submitted without obligation.
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New Industrial Equipment

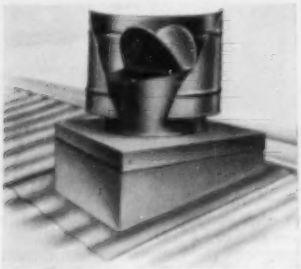
EXECUTIVES' SURVEY OF AIDS TO INCREASED PRODUCTION

Ventilation

UPBLAST VENTILATOR

THE manufacturers of this new ventilator claim that it has a greater air output for power consumed than is possible with any other type of ventilator at present available. Another advantage is that during bad weather, or at night when ventilation is not required, the heat loss is reduced to a minimum by means of shutters which automatically seal the ventilator when the fan is stopped.

The body of the unit is made of steel sheet, galvanized after manufacture and



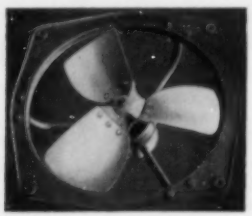
sprayed three coats of chlorinated rubber before despatch. Six sizes of unit are available with air movement ratings between 2,000 cu. ft. per minute to 27,000 cu. ft. per minute. The motors can be supplied for all voltages, and special protective treatments are also obtainable for use in factories where acid fumes or chemical reagents are a problem.

The manufacturers offer a guarantee of two years on all units. **(PM 957.)**

PROPELLER FAN

PREDOMINANTLY the main feature of this fan is its three-bladed impeller with anticlastic (double-curved) blades. Good mechanical strength is combined with high volumetric and mechanical efficiency and non-over-loading power characteristics.

Operational quietness, claim the makers, results from the impeller's scientific design, which is based on the results of research and experiments in



the field of aerodynamics and applied accoustics.

Additional features claimed for this fan include fine dynamic balance throughout, thus avoiding the necessity for resilient mounting; the incorporation of a special antisonic device to prevent transmission of any slight sounds from the driving motor; reduction of overall weight, and competitive prices. **(PM 958.)**

Readers who wish to know the suppliers of any of the products referred to in this section are asked to write to the Editor, quoting the reference number which appears at the end of the paragraph. We are always glad to consider for publication descriptions — preferably accompanied by an illustration suitable for reproduction — of new products.

TWO-WAY FAN

THIS two-way fan simultaneously extracts the vitiated air from the office or factory and replaces it with fresh air from outside the building. The

fan, it is claimed, is not only draughtless, but its design is such that complete scavenging of vitiated air is effected, whilst short-circuiting of the fan by opening adjoining windows is impossible. It also has accessories to filter or warm the incoming air. **(PM 959.)**

SMOKE DENSITY ALARM

A NEW photo-electric smoke density indicator and alarm helps control the density of smoke within preset limits. It should not only prevent excessive air pollution, but also help the operator to maintain good combustion conditions.

The equipment consists of a projector, a receiver and a control unit. The projector is in a heavy industrial casting which houses a 60 W. mains-operated lamp. A special lamp is fitted when a very long throw is necessary. Provision has been made to make lamp changing and lens cleaning simple. Air vents are also provided to allow a draught to flow along the supporting tube into the flue to keep the projector lens and receiver glass free from excessive dust.

The receiver unit is housed in a similar casting to that of the projector and incorporates a photo-electric cell and valve amplifier. No controls or adjustments are required in this unit, which is connected to the control unit by a three-core cable. The length of this cable may be as long as 300 ft. and need not be screened.

The control unit is supplied either for flush-panel mounting or wall mounting. The density of smoke is indicated on a meter calibrated directly in Ringelmann units. Remote indication may also be obtained on additional instruments. Two controls may be set to the desired upper and lower limits so that, when the smoke density is greater or less than these two limits, either one or the other relay will operate. Indicating lamps give visual warning when the preset limits are exceeded. The contacts of the two relays may be used for audible alarm or automatic control.

This equipment conforms to the recommendations laid down by the Beaver Report on Air Pollution. **(PM 960.)**

Canteen

SERVICE TROLLEY

THIS lightweight service trolley has a number of features that will interest welfare and catering officers. The choice of aluminium alloy, for instance, for the framework and trays reduces the weight from the 84 lb. odd of the conventional

trolley to only 51 lb. Over rough or uneven floors the difference is appreciable.

The aluminium alloy used in the framework is polished after manufacture, and, being rustless, retains its smart appearance despite the bumps and hazards that beset all service trolleys. The plinth is suitable for a 3- or 5-gallon urn, and a cash drawer can be fitted if required. **(PM/961.)**

APPLE PEELER

USING this machine, one unskilled person can peel as many apples in fifteen minutes as four people, peeling by hand, in the same time. The makers also claim that its self-adjusting cutter is so designed that the minimum amount

of fruit is removed from each apple, regardless of size or shape. And, moreover, they say that the setting of the cutter assures an actual saving of eight pounds of fruit in every forty pounds peeled, by comparison with hand peeling. **(PM/962.)**

Handling

LIFTING TABLE

THIS *Hytable* is hydraulically operated on the lazy-tongs principle. It is suitable for lifting 2 to 3 cwts. from a minimum lowered height of 18 in. to a height of 54 in. from floor level. The

machine is provided with a platform 24 in. long by 15 in. wide and operated by an electric motor suitable for 230 volts, single phase, 50 cycles. The machine should prove an invaluable aid for a variety of lifting purposes in every industry. **(PM/963.)**

MOBILE STILLAGE

THIS new pyramid truck incorporates a stillage platform which is raised by a foot-operated hydraulic pump through the medium of a copper-pipe and high-pressure flexible hose.

The platform of the truck is of steel sheet 5 ft. long × 2 ft. 2 in. wide with an

elevation of 6 in. It is connected to the main chassis by four parallel links which are fitted with self-lubricating bearings. The angular movement of the hydraulic pump caused by the rise and fall of the platform, is taken care of by means of the flexible hose. The power unit is a 1½ h.p. petrol engine with a three-speed gear box. **(PM/964.)**

Building

PLASTIC THEORY

AMONG a new range of standard steel buildings, this storage building shows many novel features, both in design and construction. It is based on the plastic or collapse theory, and, using a tied portal frame as the basis of the design, a building has been developed which has the clean lines of the rigid portal frame, but which uses even less steel than the conventional truss and stanchion type of construction. This reduction in weight is achieved partly in the design and

partly by departing from traditional structural practice and substituting simpler and more logical connections.

For planning purposes a 10 ft. module has been adopted, the bay length being 20 ft. This wide spacing of frames, 20 ft. as opposed to the more usual 12 ft. 6 in. or 15 ft., has many advantages from the user's point of view, and has been achieved without any substantial increase in the weight of the purlins. These are 4 in. by 1½ in. joists, and are fixed by a special form of pressed steel cleat, which introduces a high degree of continuity at the joint, and keeps the deflection of the purlins within allowable limits. In the plane of the roof the purlins are connected by sag rods of a novel design, which hook into one another, ensuring accuracy of position and eliminating threaded ends and nuts. **(PM/965.)**

PLASTIC TILES

OVER 5,000 sq. yds. of thermoplastic floor tiles have been laid in the *Lockheed Hydraulic Brake Company's* factory at Speke, Liverpool. Part of the works club is shown here.

Thermoplastic tiles have high thermal insulation qualities, heat lost through the floor being only half that lost through a suspended timber floor, and there are no draughts through the floor or around the skirtings. The tiles are damp-proof, there is no shrinkage, and the colours, being part of the tile, cannot wear off. Their appearance can be made to fulfil

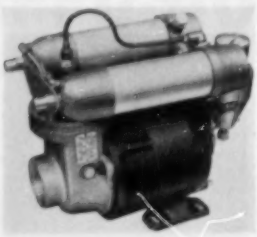
most requirements, and tile-by-tile installation makes it possible to produce any desired colour scheme or combination, pattern variations being limited only by the designer's ingenuity. They are ideal in shops and other premises, the makers claim, where there is exceptional and continual tread. **(PM/966.)**

Efficiency Aids

PURER PROCESSING

RESEARCH into the problem of providing small quantities of compressed air at low pressures completely free from oil vapour and other impurities has resulted in two versions of a new diaphragm-type compressor, one of which is shown here.

Both provide a free air delivery of 2½ c.f.m. at 35 p.s.i., and this model has its own electric motor flange mounted on the compressor body. The equipment is designed for such duties as food processing, pumping consumable liquids



like milk, beer, vinegar and soft drinks, pressurising instruments and for many special processes in medical or industrial laboratories.

Simplicity is the keynote, claim the makers. The conventional cylinder and piston, for example, are replaced by a multi-ply diaphragm, thus obviating any necessity for oil in the compression chamber. **(PM/967)**

FUEL ECONOMY

THE heat loss carried away in chimney gases is one of the most serious problems in boiler plants today. This *Ecorometer*, however, is claimed by the makers to provide the answer to improved fuel economy.

In this instrument a means is provided for indicating whether the working heat loss is greater or less than a predetermined set figure by a varying band of colour. Independent illuminated scales show the temperature and CO_2 readings, and, when unburnt gases are present, a further light signal is given to warn the fireman to discount the significance of loss and CO_2 indications.

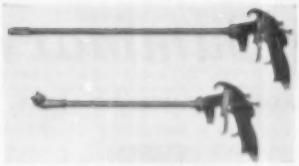
The band of colour grows in length as this heat loss deviates from the predetermined set figure, indicating unsatisfactory conditions by red and satisfactory conditions by green. The illuminated scale is clearly read at a distance and provides an instantaneous indication of departure from a predetermined percentage heat loss, whilst a small illuminated secondary indicator announces the presence of $CO + H$ up to 1 per cent.

The instrument also gives direct readings on calibrated scales of flue gas temperature and percentage CO_2 content, hence, in addition to these direct readings, it is possible to tell at a glance whether the installation is being operated with greater or less loss than the predetermined figure, or whether the amount of $CO + H_2$ present is excessive. **(PM/968)**

SPRAY-GUN EXTENSIONS

IN product finishing and construction work a demand often arises for a gun to spray a surface which the standard gun cannot reach. This problem has been successfully solved, claim the makers, by these new extension spray guns which have a selection of extension tubes of varying lengths up to 10 ft. and nozzle settings to meet nearly all requirements. There are also special set-ups to provide a flat circular spray and a reverse spray.

These guns are recommended for use



in restricted positions, for coating the interior of iron or concrete pipes with bituminous compounds and particularly for painting pipework on electrical transformers, tubular boilers, radiators and similar equipment. **(PM/969)**

FAULT DETECTION

THIS industrial stethoscope will have many applications in industry as an additional means of fault detection and diagnosis.

The instrument works independently of electricity and diaphragms, and, consequently, claim the makers, amplification of sound frequencies is pure and unspoiled by the natural frequencies which

(Continued on page 51)

The skilled man you need . . .

Among the nearly 4,000,000* skilled workers who read the "Daily Herald" every day are representatives from practically every trade and profession. There is no surer or more economical way of securing the services of the skilled replacement you want than by advertising in the columns of the newspaper they read so regularly—the "Daily Herald."

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Summary of Official Publications

READERS' GUIDE TO ACTS, STATUTORY ORDERS, NEW RULINGS AND AWARDS CONCERNING INDUSTRY AND PERSONNEL

GENERAL

Ready Reckoner of Food Values. Protein, fat and calorie values of foods by standard quantities for the use of caterers. Revised edition. (*H.M.S.O.* 3s.).

Guide to Government Orders, as at December 31, 1954. Particulars of the Powers under which Subordinate Legislation is made and of the Exercise of those Powers (except under Emergency Legislation, including the Defence Regulations) preceded by a Table of the Statutes from which the Powers are derived. (*H.M.S.O.* 84s.).

Accidents. How They Happen and How to Prevent Them. Vol. 23 (new series). April, 1955. (*H.M.S.O.* 1s.).

Public Income and Expenditure of the United Kingdom. Account, 1954-55, together with the Balances in the Exchequer on April 1, 1954; the Receipts and Payments (not being Income and Expenditure) in the year ended March 31, 1955; and the Balances in the Exchequer on that day. (*H.M.S.O.* 6d.).

Safety Circular M.F.P. No. 215. Draft Coal Mines (Training) (Amendment) General Regulations, 1955. May 17, 1955. (*H.M.S.O.* 3d.).

Safety in Design and Operation of Gas Heated Ovens and Furnaces. Factory Form No. 1856, 1955. (*H.M.S.O.* 1s. 3d.).

Index to Commissioner's Decisions. Ministry of Pensions and National Insurance. Amendment Serial No. 49. (*H.M.S.O.*, annual subscription, 5s.).

Non-Industrial Employment Bill. Standing Committee B. Special Report with the Proceedings of the Committee. (*H.M.S.O.* 3d.).

Iron and Steel Board. Annual Report for the period July 13, 1953, to December 31, 1954. (*H.M.S.O.* 1s. 3d.).

Report on Overseas Trade. Vol. VI, No. 5. May, 1955. (*H.M.S.O.* 2s. 6d.).

INDUSTRIAL DISPUTES TRIBUNAL AWARDS

No. 707. Remuneration of Dental Technicians. Claim: For increased rates of pay for dental technicians and apprentices. **Award:** The minimum for technicians Grade I to be £10 2s. 6d. per week, for technicians Grade II £8 10s. and for apprentices to be 22½ per cent of the minimum for Grade II in the first year rising to 55 per cent in the fifth. (22/4/55.)

No. 708. Claim for the Observance of Certain Specified Agreements by a Firm of Constructional Engineers at Mitcham. Claim: That the Company should observe in respect of certain workers formerly employed by them the terms of the agreements in the constructional engineering industry relating to notice of termination of employment and to holidays with pay. **Award:** That the Company shall observe the terms of the agreement between the Engineering and Allied Employers' National Federation and the Constructional Engineering Union relating to notice of termination of employment and holidays with pay. (23/4/55.)

No. 709. Salaries of Agents Employed by the Britannic Assurance Company Ltd. Claim: For an increase in the weekly salary of agents. **Award:** That the Company shall restore the allowances to the agents concerned to the level at which they were paid when first introduced with effect from July 2, 1951, namely, 8s. per week for those appointed in 1947 (or earlier), 6s. per week for those appointed in 1948, 4s. per week for those appointed in 1949 and 2s. per week for those appointed in 1950. (27/4/55.)

No. 710. Payment for Certain Bank, Statutory and other Holidays in the Electrical Contracting Industry. Claim: For the amendment, so far as five-and-a-half day week workers are concerned, of specified clauses of the agreement in the electrical contracting industry relating to payment for certain bank, statutory and other holidays. **Award:** That the existing agreement dated July 21, 1947, shall be amended so as to provide that where the normal working week consists of five-and-a-half days and (1) where Christmas Day falls on a Sunday, the Tuesday next following shall be deemed to be a paid holiday, and (2) where Christmas Day or Boxing Day falls on a Saturday, the afternoon of December 24 shall be deemed to be a paid holiday. (29/4/55.)

No. 711. Employment of Porters on Wall Washing at the South Shields General Hospital. Claim: That wall washing, as performed by porters at the South Shields General Hospital, should be performed by craftsmen and that if porters are required to perform this work they should have been and should continue to be paid the painters' rate of pay while so engaged. **Award:** Claim not established. (3/5/55.)

No. 712. Rate of Wages for Welders in the Passenger Transport Department of the Liverpool Corporation. Claim: The dispute arises out of a proposal by the Corporation concerning the rate for welders engaged in the future for employment in the Passenger Transport Department. **Award:** That the rate shall be the one paid to craftsmen in that department under the terms of agreement of the National Joint Council for Craftsmen in Municipal Passenger Transport Undertakings. (4/5/55.)

No. 713. Salaries of Clerical Workers Employed by a Firm Engaged in the Motor Vehicle Retail and Repairing Trade in London. Claim: Whether the Company should observe in respect of clerical workers employed at their Ladbrooke Hall establishment the terms and conditions of employment agreed for clerical workers in the engineering and allied industries. **Award:** That these terms and conditions of employment are not applicable to clerical workers employed at the Sales and Repair department at the Ladbrooke Hall establishment of Rootes Ltd. (6/5/55.)

No. 714. Claim for Payment in Lieu of Annual Leave Not Taken Because of Sickness or Accident by Domestic and Ancillary Workers Employed in Hospitals and Similar Institutions. Claim: That staff who by reason of sickness or accident are unable to take annual leave due to them should be paid at the appropriate rate of pay for each day of leave not taken. **Award:** Claim not established. (9/5/55.)

No. 715. Claim for the Payment to Crews Employed on Pleasure and River Bus Services on the Thames of a Bonus for the 1953 Season. Claim: For a bonus of 2s. in the pound to be paid and shared between the crews concerned for the 1953 Tripping Season. **Award:** That a flat rate payment shall be made in respect of the 1953 season of £5 to captains, £4 to other adult workers and £1 to boys. (10/5/55.)

No. 716. Wage Rates of Certain Ward Assistants Employed at Durham County Hospital. Claim: That certain ward assistants should be designated as ward orderlies. **Award:** That the ward assistants herein concerned shall receive the rate of pay applicable to workers in Group 2 of the wages structure of the Ancillary Staffs Council of the Whitley Councils for the Health Services (Great Britain). (13/5/55.)

No. 717. Remuneration of the Chief Officer of the Public Control Department of the Middlesex County Council. Claim: Regarding the salary scale which should apply to the post of Chief Officer of the Public Control Department. **Award:** That the salary scale applicable to this Officer shall be £1,832 10s. per annum rising by annual increments of £52 10s. to £2,095 per annum. (16/5/55.)

STATUTORY INSTRUMENTS

No. 646. The Hair, Bass and Fibre Wages Council (Great Britain) Wages Regulation Order, 1955. Made April 28, 1955, by the Minister of Labour and National Service under section 10 of the Wages Councils Act, 1945 (a) *H.M.S.O.* 4d. (Sets out the statutory minimum remuneration payable in substitution for that fixed by Order H.B. (43) and amends Order H.B. (37) by varying the conditions entitling a worker to be allowed by his employer a customary holiday and to be paid holiday remuneration for the customary holiday. Order H.B. (43) is revoked. Operative from May 16, 1955.

No. 692. The Wages Regulation (Industrial and Staff Canteen Undertakings) Order, 1955. Made May 5, 1955, by the Minister of Labour and National Service under Section 8 of the

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No. 731. The Retail Bespoke Tailoring Wages Council (Scotland) Wages Regulation (Amendment) Order, 1955. Made May 12, 1955, by the Minister of Labour and National Service under section 10 of the Wages Councils Act, 1945 (a). *H.M.S.O.* 3d. (Amends Order R.B.S. (41) by increasing the statutory minimum remuneration fixed by that Order.) Operative from May 27, 1955.

No. 732. The Hollow-ware Wages Council (Great Britain) Wages Regulation Order, 1955. Made May 12, 1955, by the Minister of Labour and National Service under section 10 of the Wages Councils Act, 1945 (a). *H.M.S.O.* 4d. (Sets out the statutory minimum remuneration payable in substitution for that fixed by Order H. (64), which is revoked.) Operative from May 27, 1955.

No. 747. The Rope, Twine and Net Wages Council (Great Britain) Wages Regulation (Amendment) Order, 1955. Made May 18, 1955, by the Minister of Labour and National Service. *H.M.S.O.* 4d. (Amends Order R. (11) by increasing the statutory minimum remuneration fixed by that Order.) Operative from June 6, 1955.

INDUSTRIAL COURT AWARD

No. 2568. Saw Mill Industry. Reference: To amend the Memorandum of Agreement. **Award:** That (a) Clause 2 (c) of the Memorandum of Agreement shall be amended to read: "There shall be, at present, a universal Minimum Rate for Qualified Adult Woodcutting Machinists and Sawyers of 3s. 8½d. per hour." (b) All rates in the Appendix to be increased accordingly. (11/5/1955.)

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(*Continued from page 49*)

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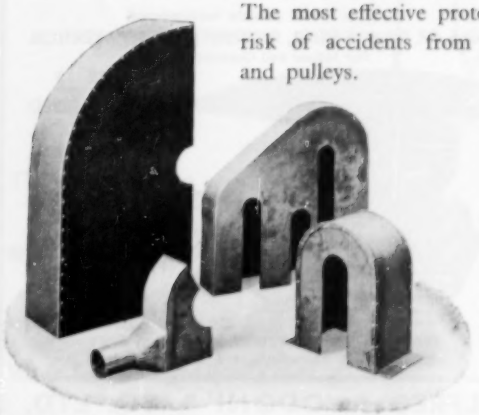

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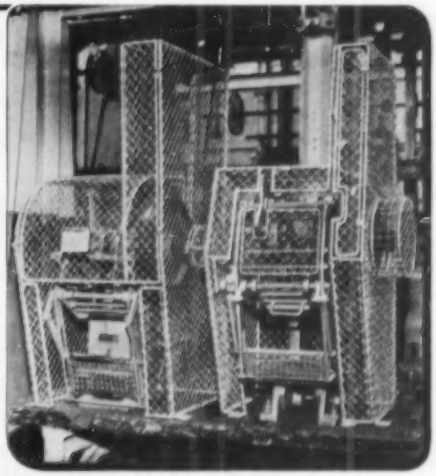

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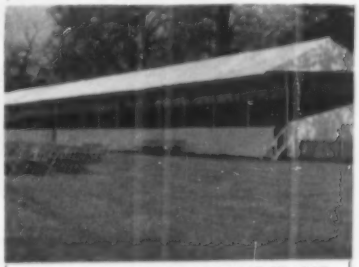

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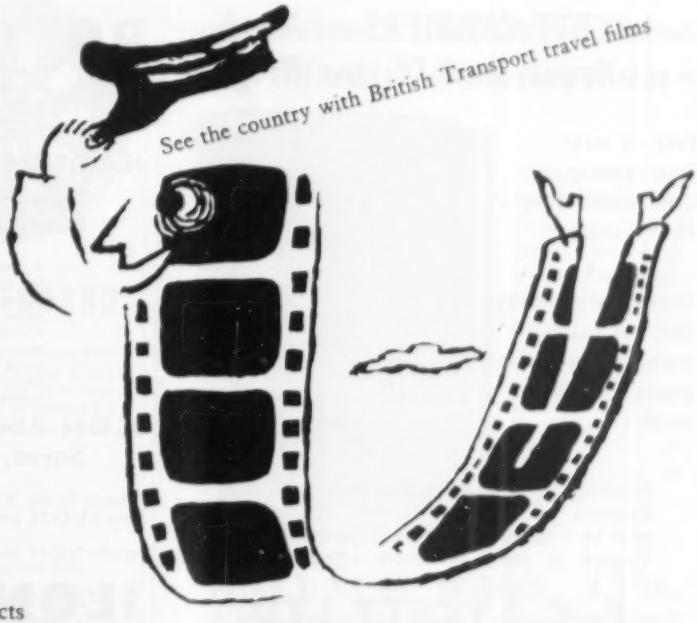

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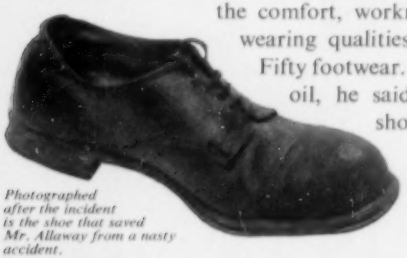

Photographed after the incident is the shoe that saved Mr. Allaway from a nasty accident.

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